

Educational Supplement

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Break

Gordian knot

Sussex University has bagged another reding lion from the ILEA...

Professor Briault, for such he now is, has been appointed part time...

The trouble is finding schools already afflicted with a dwindling intake...

That may be easier said than done. Already one L.A. which he approached...

Pity, for the portfolio of case studies which Professor Briault plans to produce...

Professor Briault wants to inform more than 100 schools...

He discussed the project with Mrs Shirley Williams before he retired,

but is not sure he will agree to her urging that he include the post-16 provision.

As part of getting dug into the routine work of the department...

If that works out, there may be another conference in the summer...

All in all it does not sound like a very retired retirement.

Bad management

The DES might have done well to issue a circular on the basic human and management relations involved...

On Monday afternoon, we rang the head about it. She had been told, some time ago, that the school would probably be closed...

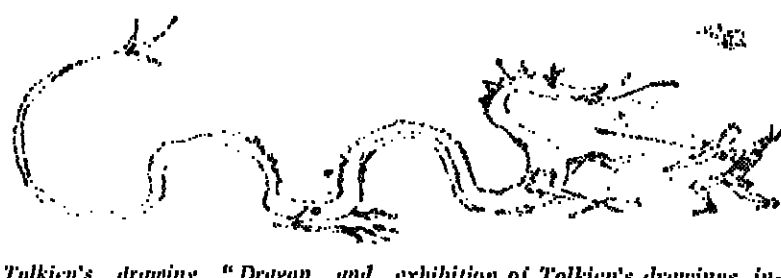
Divine judgment

Shirley Williams, Education Secretary, took an hour off from the cares of state on Monday night...

It was a civilized and friendly occasion as one would expect with Mrs Williams in control...

The occasion was the inaugural Thomas Corbitt memorial lecture in memory of the late priest and scholar Father Corbitt...

The Tory peer said that he had come out of his self-imposed exile—he has given up public speaking for some undisclosed reason...



Tolkien's drawing "Dragon and Warrior", dated May 1928, is, like others of his dragon drawings...

Record obsession

The Freedom of Information Campaign—which argues for less government secrecy and more protection for files held by the state...

The campaign has a strong case. There is a great deal of unnecessary secrecy in Britain and many people would undoubtedly welcome access to files held on themselves or their children...

Both dangers can be fatal to a society which requires the cement of shared values, and in the absence of these it must collapse into a jumble of individual ashes...

It would be kind to say the accusations were abysmal. Just as Lord Hailsham delivered another venomous opinion, a vital word would get lost among the incense holders...

However, Rick Rogers, editor of Where, and Tom Burke, president of Friends of the Earth, brought some welcome hard headedness—and hard information—to the proceedings...

The paper turned out to be downright wrong. School records are not kept secret because of the 1911 Official Secrets Act...

Voc unpop

Everyone knows what the vocational preparation scheme is. But of course, some kind of graded craft training, isn't it?

Perhaps it is the name which has caused the trouble since vocational training is just what it is not.

Certainly Ken Cooper, head of the TSA, who is endeavoring to set up, is beginning to suspect that some of the reasons why teachers and others are ignoring the pilot programme is that they simply do not understand what it is trying to do.

He said at the British Association of Commercial and Industrial Education conference this week that he would like to find a better name for the scheme...

Next week: H. S. Peters: an assessment by Harry Judge. Corporate management: the first of a two-part survey by Patricia Rowan.

US pendulum swings back to the basics

By Michael Binyon in Washington

American schools and universities each offer students a far more choice of course than in Britain, are also now wondering whether there should be a common curriculum.

At college and university level the movement is just as pronounced, though the manifestations are less obvious.

Now these universities are having second thoughts. Students going on to their third year have often missed out areas of study most teachers still consider vital to the concept of a university education.

Harvard University was one of the first to take a hard look at the problem. The dean, Dr H. Rouse, in a document issued a few months ago, said there was a need to reestablish a "common basis for intellectual discourse".

That many school leavers now cannot write a simple sentence in correct English. The movement, strongest at school level, has already led to a tightening-up of the curriculum; more emphasis on grammar, writing and reading, the introduction of tests and examinations at various stages of school, and a general return to a more formal structure of education.

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Unwelcoming message to Margaret Jackson from the students of Peterborough Technical College where the fourth regional conference was held last Friday. Miss Jackson, junior minister at the Department of Education and Science and chairman of the conference, chose largely to ignore comments about cuts though she did not rule them out of order.

Victims of racial prejudice—not just of disadvantage

By John G. ...

In effect, the CRC have thrown down a challenge to central government departments, to the new commission, and to local authorities.

It is a challenge that needs an answer. There is a danger that in the possibly phoney excitement caused by yet another great new urban strategy (Mr Peter Shore's is due to be published next month), and in the continuing battles to cut local authority expenditure, ethnic minorities will once again lose out.

And, in the narrower field of race relations policy, there is considerable danger that in the shambles involved in setting up the new Race Commission, the CRC's hard-won experience gained by practical research, persuasion and consultation involving policy makers, administrators, professionals and the minority groups themselves, will be dissipated.

No comment

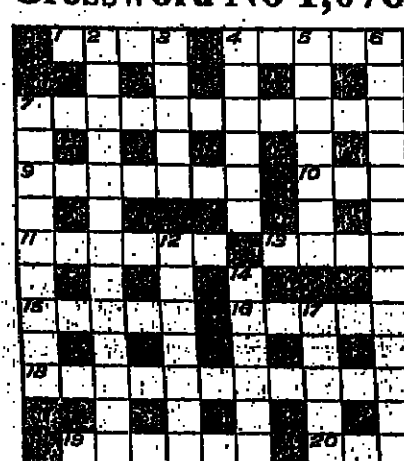
Latin/Greek advanced level subjects 820 and 821: In and after 1977, candidates will no longer be required to attain a minimum standard in any paper of level 2.

Community Relations Commission, who have been responsible for the friendly persuasion and race relations policy, have now published their findings. In May they merge with the Race Relations Board (responsible for the hard legal work) into the new Commission for Racial Equality.

Their study of urban deprivation and racial inequality (page 5) convincingly hammers home that has been their main policy plank. Ethnic minorities suffer worse than any other group and the symptoms of inner city deprivation. But they also suffer from racial discrimination. The CRC argue that policies to tackle the fuzzy and intractable problems of inner city disadvantage would continue. But such policies would be more effective, they say, if there were also a separate attempt to tackle racial discrimination.

This message is particularly relevant to the department of Education which, in the White Paper of 1974, decided to lump race and disadvantage together. But the new document also looks at local government policy, and finds an enormous gap between the administrators and the policy makers on the one hand and the people they make up on the other. The administrators and policy makers try to avoid discussing the special needs of ethnic minorities (education is slightly guilty here than social services and housing). The teachers, social workers, and youth workers are confronted by the existence of new ethnic groups which affect every aspect of their work.

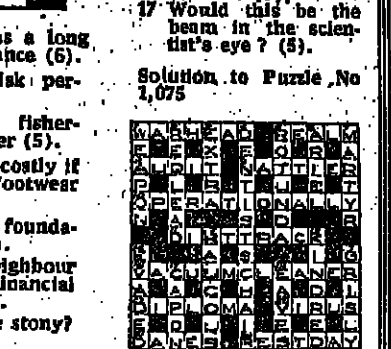
Crossword No 1,076



- Across: 1 All the same I make an offer (4). 4 Originally hot, this stone ends up freezing (5). 7 She shows no doubt that it is a matter of taste (4, 5). 9 Opposite of right is? (7). 10 In which a she her is hidden (5).

Down

- 2 Where to get a ticket for Reading? (7, 6). 3 Storage place with correct treatment for overgrown plants (5). 4 Highland wrappings (6). 5 Has no charm, though of regal quality (7). 6 Where the elector should record his vote (4, 5). 7 Obvious state of the rising generation (7, 2). 8 The pendulum swings on it (3, 4). 12 Soon, doubtly contrary to shortly after (7). 14 That which does may not be what is needed (footwear) (7).

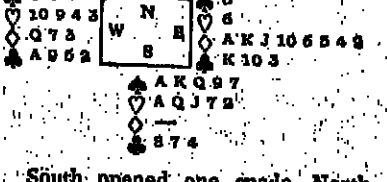


Bridge

If defence is the hardest part of the game, then the opening bid is the hardest part of defence. Books have been written on the subject, and it was once estimated that thoughtless opening leads are worth a trick to declarer more often than not.

No doubt in order to bring some order out of the primal chaos beginners are taught a standardized rule: always lead partner's suit, and always lead the highest of it. Beyond the beginner stage this won't do, of course, but if all else is uncertain it is still not a bad rule; in that it removes at least one ground of complaint from partner.

But the opposition bidding will often give you the one clue you need for this most difficult lead, and the following hand is a case in point:

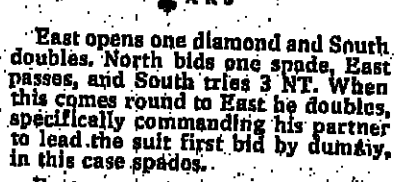


Bridge

raised him to two, and East tried 4 diamonds. South reckoned his partner must have some top clubs for his raise, so made a slightly adventurous jump to 5 spades.

West dutifully led a diamond, and South had no trouble making twelve tricks via a dummy reversal: 2 diamond ruffs in hand, 5 trump tricks on the table, and 5 heart tricks. In this case West really had not much excuse, since declarer's jump to slam indicated he was very happy with a diamond lead.

The next hand shows one defender going out of his way to warn partner not to lead the suit he has bid:



Bridge

the king of spades (suggested by the bidding), then a spade lead will enable him to set the contract immediately by winning the opening lead and clearing the ace of diamonds.

Note what happens if West opens with a diamond. Declarer can pick up East with all the missing cards, and has no alternative to taking the finesse at some stage anyway.

It must be said that East's double means he necessarily means what he means here. . . . It is a matter of partnership agreement. But the principle behind doubling games is that if one partner is overbidding wildly, and the other is overbidding, he should be defeated by the contract.

East opens one diamond and South doubles. North bids one spade. East passes, and South tries 3 NT. When this comes round to East he doubles, specifically commanding his partner to lead the suit first bid by dummy, in this case spades.

South opened one spade, North East can see that if dummy has



With forked tongues

It is not news that modern language teaching in comprehensive schools is in a parlous state. Indeed it was general concern which led the Inspectorate in 1975 to set up a special study group. Their report (page 3) does, however, clothe vague fears and allegations in firm flesh—and pretty unattractive it is too.

No doubt the trenchant criticisms set down in this third discussion paper will produce all the usual howls of "Who do they think they are anyway?" "Why don't they try teaching this for themselves?" and "Who got us into this mess in the first place?" No doubt also the paper will be represented simply as an outright condemnation of mixed ability classes. Both reactions will be a mistake.

The paper is highly critical of the standard of professionalism of many of the language teachers whom the HMI watched at work. Those who had designed courses which took proper account of the different needs of children of varying ability; who stretched the most able adequately; who tailored suitable courses with clear objectives to the less able; who expected children to work hard whatever their ability and who themselves worked hard at designing the courses, providing interesting material and marking homework, were found by the HMI to be depressingly rare despite the relatively high standard of formal qualifications among the teachers concerned.

Checking on grants

Mrs Shirley Williams' declared intention to find ways of monitoring discretionary grants (Parliamentary page 19) will not of itself increase the number of grants. It is not going to produce any more money or change the regulations. The local authorities have a discretion to reduce spending (which the Government has also been urging them to do) as well as to pay grants. In these circumstances there is no chance at all of Mrs Williams adopting a centralist policy.

That the monitoring can do at this stage, apart from persuading the schools that Mrs Williams cares about them, is to reveal more clearly the extent of the difficulty, which in turn might in the end provide evidence for some pressure on those local authorities found to be most reluctant to spend where they are not forced to do so.

16-plus steerers

Mrs Williams has appointed a steering committee to take further her review of the 16-plus examination. Sir James Waddell, the chairman, is a former deputy under-secretary at the Home Office, now retired and entering the Indian Summer of ex-senior civil servants with a clutch of committees and odd jobs, which include the deputy chairmanship of the newly formed Police Complaints Board. He is also a secretary of the DES—educated at George Heriot School, Edinburgh, and Edinburgh University—a new recruit to the Scottish educational mafia.

The DES is represented with the steering people most directly involved in working out new strategies for the management of the public examinations—Mr John Hudson, a deputy secretary, Miss Sheila Browne, HMI, the senior chief inspector, and Mr Richard Bird, the under-secretary in charge of Schools Branch. Other members, like Mr Arnold Jennings of the NUT and now acting president of the Headmasters' Association, Miss Sheila Wood and Mr Ron Cocking, have been closely associated with the work done by the Schools Council on a single system of examining at 16 plus, and they are joined by a couple of senior education committee chairmen, Mr

In the wake of the Bullock report, trade union leaders give their views on industrial democracy

More power to the teachers

Fred Jarvis

Whatever tenderness or vigour the Government eventually adopts towards the implementation of the Bullock Committee's proposals for industrial democracy in the private sector, it is not likely to do much about the promotion of it in local government. Not, at least, if one defines industrial democracy in terms of the TUC's policy. So far as teachers are concerned, the Taylor measure is rather more likely than Bullock to bring a greater measure of democracy to their workplace.

In view of the almost wholly negative attitude of the local authority associations to the TUC proposals, the main hope of progress for local government as a whole must now rest with the adoption of the joint TUC-Labour Party statement on "Industrial Democracy in Local Government" which was approved by the TUC General Council and the Labour Party Executive recently. This may cause at least the Association of Metropolitan Authorities to reconsider its position.

If it does, then taken together with the sympathetic attitude of the Greater London Council, the scene might be set for a more positive response by local authority representatives when in due course the matter is taken up with them by the Government.

The hostile reception of the CBI and industry generally to the Bullock proposals probably means the Government will be in no hurry to pursue the extension of industrial democracy throughout the public services. It did, however, initiate a series of studies of the subject early last year and it was this which led the TUC Local Government Committee and the Labour Party National Executive last June to establish a joint working party in local government.

The TUC-Labour Party statement declares that while the representative nature of local government means there are special problems to be faced in introducing industrial democracy within it, nevertheless, a case for bringing the views of people working in this area to bear upon the formulation of a policy is

What about workers on committees?

Alan Fisher

Many of those who advocate an extension of industrial democracy would argue that the individual enjoys fewer democratic rights within the workplace than outside. Beyond the factory gate he influences the decisions that affect his daily life. He can take part in his member of his local councillor and his member of Parliament. If he dislikes what they are doing, he can write to vote to remove them from office. At work, however, he is deprived of these democratic rights and finds himself in an autocratic setup.

It is these differing standards that have led the major political parties to search for ways by which working people can be given more say in the decisions that affect them in their place of work.

Following the 1973 and 1974 conferences, the TUC issued its final recommendations on industrial democracy. The TUC proposals were designed primarily to cover the private sector, but its report made clear that it saw no difficulty in applying its ideas in the public sector to the nationalized industries. In local government, however, it recognized that there were special problems.

Most language teaching a waste of time—HMIs

Bob Doe

Modern language teaching is a waste of time and money, "have a go" and "start again" are the words used by yet another report from Her Majesty's Inspectors. In their report, the third and most outspoken in the HMI series, the inspectors criticise the ability teaching in their ground paper for the great

recommendations that the top third of the ability range should be taught in the language courses up to the age of 16. The rest could be given less demanding language courses.

The inspectors were "gravely concerned by the under-performance they found among the most able in every aspect of language learning. Their very considerable powers of aural comprehension remained largely undeveloped; they were not taught to speak the language with flexibility and discrimination but tended to operate mechanically at a low and often trivial level, the over-reliance on the invaluable skill of rapid silent reading; and written work, instead of requiring personal and lively self-expression, was all too often dull, mechanical and undemanding.

The HMI's criticize schools for summing that all pupils need the same language course. "It is abundantly clear that such an assumption is not only false but has unfortunate, often distressing, consequences in all but a few of the schools and pupils of average ability being set pointless and impos-

ible tasks with the result that they abandoned the subject at the first opportunity.

And 'cafeteria-based' exams

He suggested the Education Secretary should revive the Central Advisory Council for England and Wales. It should have strongly worded terms of reference for establishing the right curriculum for the 16-plus age group, he said. Education Officer, said this at a conference of industrialists, local authority representatives also forecast that opportunities for continuous education for all 16-year olds would be introduced in the next 10 years. And he urged for a course certificate to see the present system of taking examinations by single subjects.

Dr Briault, who is now visiting professor at Sussex University, said he would be very happy to lead a working party which would mean a better curriculum for 16-plus age group and some form of coordination between school examinations and further education examinations. "There is no relationship worth talking about at the moment between the two systems of examinations," he said.

Leads protest at new ratios

Next year's sixth formers and, as a result, drastically limit job prospects and create more unemployment among pupils. The change will mean the loss of hundreds of potential sixth-formers will follow these 47 to the employment exchange because they cannot get the qualifications they need. The House of Commons has been asked to implement the change. From next year, the pupil-teacher ratio for sixth-formers not studying level examinations will leap from 11:1 to 19:1. This "strikes a blow at the educational opportunity of 16-19-year-olds," the students and directors say in a statement. "It will radically cut the number of places available in sixth-form colleges and schools into separate colleges."



The Burnham Committee meets today for another round of talks on the teachers' pay claim.

The Burnham Committee meets today for another round of talks on the teachers' pay claim. Agreement is expected on the global sum to be made available but discussions will concentrate on how that money is to be divided. The claim for a maximum rise of £4 a week and a minimum of £2.50 would add £90m to the present wage bill of £1,926m.

The sticking point so far has been how much should be deducted from the £90m to cover increments which the local authorities calculate range between £1.30 and £1.1m. At stake is an extra 46 pence a week in pay packets.

It is likely that the authorities' side of the committee will insist that the cost of increments cannot be reduced below £1.1m. The teachers' leaders, weary of repeating their protests at every Burnham meeting this year that there is no conclusive proof that increments cost so much, are likely to accept that argument.

Two weeks ago the teachers rejected a three-tier pay offer by the management. This would have given £105 a year to those earning less than £2,600; those between £2,600 and £4,160 would have got a rise of 5 per cent minus £27; those earning more than £4,160 would have got £180.

Gwent gets the worst results

Education committee chiefs in Gwent are meeting next month to discuss a secret report which shows that the county's education results are the worst in the country. The report shows that more Gwent children leave secondary schools with no qualifications than in any other county. Over a third of the pupils do not obtain GCE or CSE certificates.

Wales itself fares badly compared with England. Figures revealed earlier this year show that 31.6 per cent of Welsh children leave with no qualifications compared with 20.4 per cent in England. An inquiry into the discrepancy has been mounted by the Welsh Office.

Gwent's figures, contained in a report by the director of education, Mr E. H. Louton, show that 34 per cent of children do not obtain qualifications. The report has not been made public and only members of the authority's schools sub-committee have seen it so far. But a reference to the report was contained in the sub-committee's minutes which expressed concern at the achievements of boys and girls in Gwent schools. The chairman and vice-chairmen of the education committee and the schools sub-committee are to meet next month to decide what steps to take.

Pay talks may stick on differentials

by Stephen Cohen

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The National Association of Schoolmasters-Union of Women Teachers has told the TUC that it will back a new round of the social contract, but wants changes to help restore pay differentials.

The union told Mr Len Murray, TUC general secretary, that while the social contract and phases one and two of the pay code had been broadly justified its rigidity had created real problems in differentials.

DES backs separate colleges

Further Government support for separate sixth-form colleges comes this week in a report from the Department of Education and Science. The colleges are seen as a way of using teachers more efficiently, says the report on comprehensive education. There are 68 sixth-form colleges in the country with more than 38,000 students drawn from comprehensive schools in their areas.

Most of the colleges are open access—there are no formal entry requirements—but a few use some method of selection, often based on O level passes. Ten years ago there were not one college and the DES said in a circular that only a limited number of experiments would be sanctioned.

The report says that sixth-form colleges are now a well-established feature of the comprehensive system. "They can lead to some economy of resources and allow for a more efficient use of specialist staff."

The report traces the growth of comprehensive education and sets out the progress made by local authorities. The latest figures show that, of the 105 authorities, only one has no comprehensive schools. Report on Education 87, DES, Elm House, York Road, London SE1, free.

All six CoRT packs are now available. They can be used separately or as a series. Each pack contains a teacher's handbook and (re-usable) lesson notes for 30 pupils for ten lessons. (CoRT 6 is in booklet form.)

Further details from: Direct Education Services Ltd. 1 Alfred Street, Blandford Forum, Dorset DT11 7JJ.

Thinking in English

'CoRT Thinking' is probably the most widely used programme in the world for the direct teaching of thinking skills. The programme seems to have been welcomed by teachers in the English Department for several reasons:

1. The compulsion to express one's own thinking provides a strong motivation for the development of language skills.
2. Language and thinking have always been closely related (though articulateness does not by itself confer thinking skill).
3. There is an opportunity to teach the two most important skills of all at the same time.
4. The teaching style of English teachers is, in general, very suited to the teaching of CoRT Thinking.
5. English language papers require more general thinking skill than any others.
6. The CoRT framework is so well suited to language teaching that it is often used for the teaching of English as a foreign language.

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A spokesman for the county council said he could not comment on the report's conclusions, documents.

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AAM conference Bert Lodge reports Crazy to drop maths and languages too early—Mrs Williams

Changes in the traditional concentration on only three subjects in the sixth form were called for by Mrs Shirley Williams when she addressed the annual conference of the Association of Assistant Mistresses in London last week.

She also told delegates that greater stability in staffing was already showing results. She suggested that there might be a case for teaching two sorts of maths and English, and rejected again the idea of a centralized curriculum.

Too early specialization, resulting in too many pupils dropping maths and foreign languages too early, was crazy for a trading nation, said Mrs Williams. A foreign language should be maintained, at least as a subsidiary subject, up into the sixth form.

"Industry and science are not becoming insular. They are necessarily international. Thousands of our boys and girls will be insufficiently equipped for their future careers if they do not retain their ability to speak a foreign language.

Weak areas in our industries, like design, marketing, after-sales service, require a foreign language. Girls could make a major contribution to them.

"This would help to solve the problem of finding new careers for those girls who in past years went into teaching."

In the future the problem in schools would be not of contraction rather than expansion, said Mrs Williams. In the past two years the wastage rate from the profession had dropped from 11 to 6 per cent. In the inner cities it had dropped by one third. The stability would make for better standards.

Recent tests from the National Educational Research showed a rise in reading ability at 11. The scores for the

whole country were: 1955, 28.71; 1970, 29.38; 1976, 31.07.

Referring to criticism from employers that school leavers are illiterate as they ought to be, Mrs Williams said that no fair comparison could be made with the leavers of a generation ago. A much higher proportion of girls and boys now went on to further and higher education.

"Employers are looking at a much more heavily creamed section of the population than they did before."

The question was whether to educate young people to achieve the maximum academic achievement they were capable of or to give them skills they would need at work. She thought the answer was to provide both.

Perhaps there should be two sorts of maths and English. At present girls gave up maths, and boys dropped English literature too early. There was a gap between understanding maths and maths as a skill.

Rejecting the idea of a directed curriculum as "too Orwellian", the Education Secretary said there was, however, need for a common approach and common guidance to cope with the problems arising from transfer from primary to secondary schools and mobility of parents.

"Teachers' centres could help here. They could bring together teachers from feeder primary schools and secondaries so there will be some understanding of what each is doing."

Mrs Williams said there had been a marked increase in the number of girls taking physics and chemistry at GCE and CSE level. Perhaps a unified science course would be better for the 11-16 age group.



Crumbs from the top table: Miss Joyce Baird, president of AAM, waits hopefully for words of comfort.

Disaster if l.e.a.s get rid of their part-timers

Recognition that a period of part-time service was a normal element in the career of many women teachers was demanded by Miss Catherine Hurran, Highcliffe Comprehensive School, Dorset. Her motion which urged local authorities to not only retain part-timers but to go on recruiting them was carried unanimously.

The number of part-time teachers was cut by one fifth last year, she said. Many AAM members were part-time and were among the most effective and hardworking of colleagues.

"Are we going to allow part-time teaching to become a thing of the past?" she asked. "It offers opportunity to people who have much to offer in return."

Mrs Beth Davies, Macclesfield High School, said part-timers were a work experience undreamed of before marriage. It brought no

paper qualifications but it was a valuable complement to teacher training. Local authorities must be encouraged to retain and recruit part-timers.

Miss Heather Morgan, Leamington College for Girls, said all part-timers in her own area had already left the part-timer in their own department she had been obliged to teach three separate A level syllabuses this year.

"It is that is what getting rid of part-timers means, disaster is approaching."

Mrs Margaret Mills, Wareham Middle School, Dorset, said many teachers would like to go part-time for personal, academic or domestic reasons, or even older teachers nearing retirement provided they could retain security of tenure. She was confident a part-time contract could be arranged.

Girls shown in passive roles

A motion calling upon publishers to eliminate sexism from school books was strongly opposed at the conference.

Though it was finally passed, almost as many of the 350 delegates abstained as voted in favour of the motion. The opponents warmly applauded Mrs L. Turbot, Normanston Grammar School, York-shire, when she warned of the danger of replacing one kind of brainwashing with another.

She was replying to criticism from the proposer, Mrs Diane Smith, Bishopstoke Infants School, that school books showed girls in passive roles while boys were always portrayed doing something active.

Mrs Rita Corless, Southampton College for girls, said it amounted to brainwashing in the formative years. "Many girls are convinced their main role in life is to be some boy's slave. Many boys get the same impression."

Boys also suffered from this sex-stereotyping. They were scorned by their peers, or even their fathers, for not being good at sport. "I maintain irreparable damage can be done before they leave the infants."

Mrs Turbot was uneasy about the motion. "We are making value judgments about each kind of activity. The motion assumes that it is something superior for a girl to climb mountains or do adventurous things."

"There is a danger of oversteering the case, of oversimplifying it. We should be teaching people to have freedom of choice."

Fear and mistrust among teachers 'scandalous'

Ignorance, fear and mistrust between teachers at different age levels was in some areas nothing short of scandalous, said Mrs Barbara Smith, the Spynie School, Towcester, when demanding more between curriculum and methods various age groups. Her resolution was carried.

"The feeling that a pupil's earlier teaching has been inadequate is too common among teachers. What lies behind all this mistrust?"

One factor was fear of a loss of autonomy. "Heads believe they may lose the right to be their own masters. The syllabus will be dictated from below." Lack of confidence in their ability to teach well was another.

"Those on one side have little or no knowledge of the territory of the other. We must all be made to get to know each other, starting with heads then across the subject range. Even better would be visits to each other's classrooms."

Mrs Pauline Spott, Widnes Junior College, said she taught maths in a sixth-form college. "It is difficult to find a common area from which to start. Our feeder schools say they need to know what we are doing and to know what they are teaching."

A plea for time to link up other schools was made by Mrs Patricia Griffiths, Netherley Comprehensive, Liverpool. At the school, she said, there was a many links committee members from the 14 feeder primary schools, but it was not until after four o'clock.

Mrs I. M. Preston, Moultonmouth School, Sunderland, reservations about insisting standardized methods. "You're alienating heads and staff of feeder schools. There are more than one of making a cake."

Top jobs lost by falling rolls

The conference decided an emergency resolution should be enough flexible next stage of the Government policy to permit different restored and anomalies present scales to be removed.

Miss Kay Wimpenny, High School, Lowestoft, said the effect of the Government's so far—two flat increases, been to erode the salaries, resulting from the 1974, to teachers in 1974.

Miss P. McNaughton, School, Fulham, said the system was being affected by rolls. Her own group of 10, entitled to three senior posts but if it dropped to nine they would not get any. An element of flexibility essential if career teachers be encouraged.

Miss E. Whaley, Middle primary school, Tyne-Wear, that with one deputy, Miss Scale 2 posts and four 3 there was no prospect of getting any higher in her school. "We can't have a Scale 1 deputy head. We look to the local comprehensive."

Mrs G. M. Thorpe, Park School, Derby, said her school 17 fifth forms, 14 fourths, 11 ninth second and eight last forms.

"Next year we shall have six first forms. There is no promotion for anyone in the school within the existing system."

Moved back to headships

The decision by some local authorities to move advisers to vacant headships on a temporary basis was condemned by Mrs Eileen Edwards, Masefield School, Wigan.

She was supporting a resolution urging local authorities to prevent it happening by reducing staff ratios or by using money for education for other purposes.

"They are mostly women who have moved out of school systems and are now moved back," said Mrs Edwards. "We do not feel they can give dedication to the job needed by a head in such a temporary arrangement. This association prevent it happening."

Miss Margaret Fawcett, teachers must see education adequately provided for, even mount a rise in rates. Before moves were made it was essential there should be consultation between teachers, education officers and councillors.

The serious consequences of replacing secretaries and cleaners were emphasized by Laura Guest, Roundhay School, Leeds. "I am senior tutor. I also monitor, mother confidence run errands, cope with care and teach 15 periods a week. Yet, for only one period each day I have the help of a secretary. If she is not replaced when she leaves at Easter you can imagine the situation I shall be in."

Union complains of low standards

Mixed ability teaching, indiscipline and parental indifference were prime causes of declining educational attainment, said the National Association of Schoolmasters-Union of Women Teachers on Monday.

Giving evidence to the Commons committee which is looking into standards in schools, Mr Frederick Smith, assistant general secretary of the association, said indiscipline was no longer confined to the third form of secondary schools. He said that in the last decade and a half the trouble had spread throughout secondary schools and was appearing increasingly in primary schools.

"My colleagues in infants' schools tell me, although I can hardly credit it, that even their children are absolutely intractable."

The difficulty was now much greater than teachers were traditionally accustomed to, he said, but he resisted a suggestion from Mr Peter Hardy, a member of the committee, that local authorities should prosecute parents of children who were persistent disrupters.

"You cannot compel people to send their children to school then prosecute them because the children will not accept it," he said.

Mr Ronald Cocking, treasurer of the NAS-UWT, said the trouble usually came from low achievers of poor motivation. "There are children who do not and will not accept or fit into school," he said. "They will have to be put out for the sake of the greater number."

He claimed that serious disruption could be caused by only one in a class, or even one in a school. Appealing for society to recognize the difficulty, he said, "The community must help us."

He claimed that the roots of the problem lay in parental attitudes and the fact that, in many families, both parents were out at work.

Before the war a child would be punished but that no longer seems to be the case. "With both parents out, children had more freedom and resented the assertion of authority," he added. "But now we are crying out for a return to a social system that is no longer there."

In an effort to involve communities more closely with schools, and in the hope of gaining more support for them, the association suggested the disbanding of existing governing bodies and their replacement by a small community council for each school.

The councils would comprise parents, teachers, and others with what was described as "a legitimate interest" in schools' management and the curriculum. He agreed that this could place teachers in the position of having to justify their methods but he thought that was no bad thing.

Blame for declining standards and indiscipline was also attributed in some measure to mixed ability teaching. In written evidence the association said:

"We know mixed ability teaching cut work for teachers who believe in it, who are capable of withstanding the enormous pressures the technique engenders and who are prepared consistently to put in the high level of effort that is called for. We believe that many teachers have suffered from having the technique imposed on them."

The combination of mixed ability teaching and an insecure disciplinary situation was an obvious recipe for disaster which no amount of well-meaning teacher effort is likely to avert."



Snails like porridge oats—a discovery made by pupils of Coldfall Primary School, Haringey in London, while working on a project for the borough's third annual environmental studies exhibition to be held for two weeks at the Haringey Teachers' Centre, from March 26.

Some delinquents like school

Some serious and persistent juvenile offenders are not necessarily against going to school, a Glasgow survey has revealed.

But the majority of offenders are anti-education. Mr Frank O'Hagan of Notre Dame College of Education, Glasgow, finds in the survey which is published in the latest issue of Educational Research.

He selected a group of 120 boys for the project, half of whom had been convicted of serious offences. They were between 13 and 16 and all were drawn from poor families.

Information was elicited through group discussions, interviews and essays. Three groups were discovered. There were "the school-oriented", those who most favoured school; "the group included the offenders who did not value education. There were those with a more casual attitude who saw school as an unavoidable bore; they did not seek to cause teachers trouble and generally gave no trouble if left alone."

The third group was determinedly anti-school and included one or two children who had not been convicted of an offence. They were persistent trouble-makers who had no use for education and some of whom had managed to escape it for all but a few days for several years.

A high proportion of all the participants in this group thought teachers had no real difference in their views about school, although the offenders were more prone to complain about it. All rated teachers as standing between their parents and the police in their attitudes. "The system agreed that education was useful, only 30 per cent fewer than the non-offenders."

Mr O'Hagan has interpreted this as disproving the myth that working class children did not value education. In a concluding call for further research along these lines he says it could only lead to the early spotting of potential educational drop-outs and make it possible to organize remedial action before it was too late.

Educational Research, February, 1977, National Foundation for Educational Research, 2 Jennings Buildings, Thames Avenue, Windsor, Berks. E17.5.

Overcrowding and truancy link

Overcrowded homes and the truant's urge to escape from school are linked in a new report prepared by the National Children's Bureau.

Lack of amenities such as hot running water and the sharing of lavatories and bathrooms with other families were also found to affect truancy. This applied whatever the social class of the children, although it was less true of families of semi-skilled and unskilled workers.

The study is based on a national survey of 15,000 16-year-olds. Earlier research had suggested that truancy was much more prevalent in neighbourhoods labelled "deprived", but the bureau claims its latest study is the first to establish the direct link between poor school attendance and poor housing.

Mr Alan Tibbott, who carried out the research, suggests that it may be the result of the seeming unimportance of education to parents under stress of overcrowding and their lack of interest is reflected in their children's school work, the standard of which is further depressed by the tiredness of children who have to stay awake until the whole family settles down for the night.

Staffing dispute drags on

An attempt to break the deadlock in the dispute between teachers and Stockport education authority over staffing standards failed last week. The National Union of Teachers suggested that the dispute should be referred to arbitration, but the authority rebuffed the idea.

The union made the offer at a meeting between teachers' representatives and those made by the authority last week. The dispute over Stockport's low position in the pupil-teacher league table and the decision to employ 28 fewer teachers next year.

The ratio of children to staff in primary schools is 27.9:1, the authority offered a staff:week to employ four more teachers by making savings elsewhere, but this was rejected as "desertion" by the NUT.

A spokesman for the authority said this week that a plan to refer the dispute to arbitration had been turned down because there was no way in which an outside organization could decide on a matter which affected the rates.

They cannot arbitrate on how much money we can take from the ratepayers. We are not sure that it would be lawful.

A NUT spokesman said that there were precedents for arbitration. The dispute, which affects 120 schools and has led to 5,000 children being sent home every week, is still continuing.

The Association of Schoolmasters-Union of Women Teachers is also taking industrial action by not standing in for absent colleagues.

A working party has been set up to examine the teachers' demands for improved staffing ratios and the staff report in two weeks' time. Stockport Council has fixed its budget for next year, so any extra money would have to be found by administrative means. The working party will look at a plan to save the 1,000 by delaying payment of teachers' August salary cheques until August itself.

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Platform speakers at last week's regional conference.

The item that does not appear on the agenda continued to dominate discussions in the Great Debate went into its fourth session at Peterborough Technical College last Friday.

Nearly all the teachers who spoke raised the subject of shortage of resources, and cuts were a particularly sore point with I.C.A. spokesmen from surrounding East Anglian counties, where they have done so badly out of the distribution of the rate support grant.

Miss Margaret Jackson, Under Secretary of State for Education, said when she opened the conference that resources could be raised in context. But the names she gratefully singled out for special mention in her summing up were those of the only two speakers who said that resources were not the most important thing.

Mr C. T. Black, chairman of Bedfordshire education committee, said in-service training had been increased in spite of severe cuts. "You still improve standards without more resources," he added. Mr George Cooke, education officer for Lincolnshire, even summed up a war-time spirit. "There was a crisis of morale, but we should all pull together, redeploy, and accept the limitation of resources."

"We can't ask for more resources," commented Miss Jackson severely, "without asking where they will come from. There are still very considerable resources in education."

Summing up the real subjects for

debate, she said the curriculum session suggested that communication and numeracy skills should be the aim in all subjects. On the question of assessment, there was agreement that it was valuable and necessary for diagnostic and remedial purposes; the argument was on how it should be done, and whether results should be published. Everyone wanted more induction and in-service training for teachers. Where school and work was concerned, if industrialism was turning young people away from industry it was a failure of both sides, but especially of education.

Mr Jack Chadderton, director of education for Newcastle, opened the first session on the curriculum with some welcome clarity on a common core, and more provocative remarks about sanctions and the 11-plus which were less well received on the platform.

If you took the three Rs as a basis for the core, together with religious and social education, that would have the merit of simplicity for phase one. After that, you could add on science, humanities, industry, commerce, political background and a second language, but it should be remembered that the core curriculum and the whole curriculum were not the same thing.

The core should not be imposed, but which subject, reason fails, we

Peterborough: Round 4 of the Great Debate Cuts—the common sore

ing countries provided some of the schools there were better than here, Miss Jackson wondered if he was comparing the average here with the cream of the developing countries.

On teacher training Professor John Turner, of Manchester University, said we had to raise entry standards to two A levels and O level in English and mathematics, and the certification course should be established by autumn 1979. Training was essential in difficult and changing subjects, attention should be paid from structure to content, and the service training backed with money.

An Essex head said he was baffled about the possible closure of Shorechurch college, which trained the best handicraft teachers. "How can we achieve if we close down the resource centres?"

Miss Hilary Shuard, who trains mathematics teachers, pointed out that we had come through an acute shortage. Mathematics was taught by people who were doing the best though underqualified for the job. "Many will be around for the next 20 years," she said.

Mr Jack MacGougan, of the TUC General Council, opened the school and work session. The neglect of 16-19s was appalling, he said, and the TUC wanted a government pledge of education and training for all young workers.

Mr Peter Kennedy, of the NUT, pointed out that schools would be providing a smaller workforce which would mean more retired people. "That was why schools needed more money until some of the 20,000 unemployed teachers should be put to work to help."

Mr K. Payne, of the Cambridge Institute of Careers Officers, wished the government would legislate to make it compulsory for jobs to be registered with the careers service. They were in a no man's land between I.C.A.s and employment agencies. "One wonders if behind the Manpower Services Commission is accountable."

Three out of four of the new nursery school places this year would be in needy areas, most of them of urban deprivation. There was still a system of salary additions for teachers serving in deprived areas, though that mattered less than it did before the Houghton award, when teachers were poorly paid.

Mr Pat Sharpe of the engineering industry deplored the fact that the Technician Education Council only required CSE grade three for entry.

Mr Stella Meldrum, who teaches adult illiterates, said there would be monitored. She would like something on the lines of C.N.A. validation, which would force teachers to think out clearly what they were trying to do.

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Parliament

by Alan Wood

Grant reductions to be checked

The Government is planning to monitor discretionary student grants which are being sharply reduced as a result of education spending cuts. This was announced by Mrs Shirley Williams, the Education Secretary, in the House of Commons on Tuesday.

Mr Bryan Davies (Enfield, North, Lab) had asked if she was satisfied with the level of discretionary awards, being made to students for 1977-78 by local authorities with priority to the education of students aged 16 to 19 years of age.

Mrs Williams said local education authorities were free to make their own decisions on the level of expenditure on discretionary awards and "I have to inform you about their policies for the 1977-78 academic year."

But I shall be exploring with the local authority associations ways and means of monitoring the position on discretionary awards."

Mr Davies—"There is evidence of anxiety in many quarters that the level of these awards next year will be lower than they would wish. The department should look for ways in which a more specific grant could be given to local authorities to ensure that this aspect of policy retains the priority she has given to it."

Mrs Williams—"The most recent figures are for 1975-76 and indicate an increase of about 27 per cent in spending in that year on some 50,000 discretionary awards. There are no later figures, hence the March 23 meeting, because I am

concerned by some indications that discretionary awards are being sharply reduced.

Mr John Hannam (Exeter, C) said that many handicapped and disabled students, because of the difficulties in secondary education, were not able to go forward into higher education where they had mandatory awards.

Would she look carefully at the situation where local authorities were possibly not making sufficient use of the discretionary award scheme for handicapped students and consider making them mandatory?

Mrs Williams—"I will examine the matter. One reason in some cases is that provision is not made for handicapped young people in building designs. We have sent a circular asking local authorities to remember this when designing colleges and similar institutions."

Mr William Van Straubenzee (Wokingham, C) said that, apart from the narrow, human problems, these discretionary awards, contrary to the idea of saving money, covered important courses like aspects of the medical profession, business studies and so on, all directly relevant to the country's recovery. Anxiety about the undue reduction was well founded.

Mrs Williams—"I share his worries, but to make all discretionary awards mandatory would mean much more public spending. The most I can promise is to examine this and see if there are particular categories which we might reconsider."

Calm before the storm in the grounds of Ottershaw school.

Parents to fight closure decision

Ottershaw School, Chertsey, one of the few state boarding schools, is to be closed in 1979. Surrey County Council decided on Tuesday that it could no longer afford to maintain it.

The decision now goes to Mrs Shirley Williams, the Education Secretary, for ratification.

Parents, teachers and old boys are opposed to the proposed closure. They are to appeal to Mrs Williams to overrule the council. The school, they say, could be saved by expanding the number of pupils, possibly girls, from its existing total of 240 to 350, and by rationalising the use of the premises.

They also want to cut out the two final years of pupils' stay, reducing the age range to 12-16. Their plan, they say, would cost about £5,000

immediately, but if adopted the total cost of running the school would drop by £20,000 a year.

The council, which spends about £300,000 a year on Ottershaw School, says, however, that £150,000 is needed now to repair crumbling stonework. Some of the savings recommended by the parents would either be unacceptable, such as the increasing of teacher-pupil ratio and increasing numbers in dormitories, or would not produce the saving the parents suggest.

In any event future retrenchment might still make the closure necessary.

It was a difficult decision," said Mr E. B. Tredwell, the county's deputy education officer, "but it was a case of head against heart." He agreed there could be difficulty for parents whose boys had to find

boarding places elsewhere and who might be obliged to pay boarding fees in the independent sector.

Cases of hardship would receive special consideration. Tuition fees would be met.

The parents, encouraged by the close young (35 to 30) in the council, feel they have only to keep the pressure up to win a stay of execution, if not an absolute reversal.

"Our next move is to take the fight to the Education Secretary," said Mr John Hishop, president of the parents' action group. "We shall convince her that it is not in her interest to close Ottershaw School, set up in 1948 under a socialist government and one of the early comprehensives. We are absolutely determined about this."

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*currently under review

More trainees

More arts graduates went from Hull University into teacher training last year than in 1975, despite the massive rise in teacher unemployment.

At the same time fewer Hull graduates remained unemployed in December, 1976, than at the same time the previous year, according to the annual report of the university's careers and appointments board.

Many students, particularly with arts degrees, see teaching as the only field of work which they are prepared to consider seriously," says the report. "The percentage of arts graduates entering teacher training in 1976 actually rose to 36 per cent compared with 34 per cent."

By contrast only four arts graduates out of 268 went into manufacturing. Arts graduates simply do not appreciate that they have any contribution to make to industry, the report comments.

Less than five per cent of Hull graduates who remained unemployed in December, 1976, compared with 6 per cent in 1975 and compared with an anticipated figure of around 10 per cent.

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There is still time to enter Times Educational Supplement's Children's Book Review Competition, full details of which were announced in the 223 of February 11. Children under 12 are invited to submit their own review of any book they have enjoyed or found useful. Reviews should not be more than 250 words long and should be sent in before April 2 to: Michael Church, Literary Editor, The Times Educational Supplement, PO Box 7, New Printing House Square, Gray's Inn Road, London WC1X 9SZ.

Another £100,000 for the WEA

The Workers' Educational Association is to get an extra £100,000 a year from the Government to share with the culturally deprived adult. This was announced in the Commons last week by Mrs Shirley Williams, the Education Secretary.

The new role for the WEA was originally suggested in the Russell report on adult education. In 1975 the Government asked the WEA to consider giving priority to working in areas of educational disadvantage, industrial work, and social and political education. The WEA agreed, and was rewarded by an increase in grant which should now bring its annual Government grant up to £1m.

Seventies' folk Sandwell Nursery and Infants Association is to hold an exhibition in May at the Churchbridge teachers' centre, Oldbury. The exhibition theme will be "Born in the 70s."

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Wanted: multi-racial staffs

by Virginia Makins

"As minorities do not take any pride in themselves anyway, it would be difficult for us to try to teach anything, which we know little about."

"We provide West Indian food and curry is regular. Black peas, etc. are very expensive, so we can't do it very often, but we have a lot of curries. The staff love it. We also have lots of pictures and books showing black people, and we had a black Father Christmas..."

These two approaches to children from ethnic minorities in day nurseries come from a new survey by the Community Relations Commission of the views of staff in 35 multiracial nurseries (Caring for Under-Fives in a Multi-Racial Society, CRC, 60p).

The staffs felt they had not been trained to meet the different needs of children from different ethnic groups, and identified areas in which they could do with help. One was language, both for non-English and non-standard dialect speakers. Some staff were confused about bilingualism, complaining that children "reverted" to their mother tongues at home: most saw their job as trying to develop a good enough command of English to help the children through school.

But the techniques used were much the same as those used with white children—stories and rhymes, talk with staff and other children, naming pictures. The commission suggests that there may be a case for special language techniques, and for either multi-lingual staffing or for showing parents how to develop the children's first language at home.

The staffs felt they should know more about special health needs—conditions like asthma, and diseases which rarely affect white children. They have to know about diets, and where they can cause nutritional deficiencies.

The question of cultural identity was more controversial: a minority felt there was no need to emphasise cultural differences with young children. But many believed it important to make the children feel secure about their colour and culture, and tried to make sure that minority children and customs were well represented in books.

Finally, they felt the ways of establishing bonds with parents. The commission believes that no progress will succeed in helping children unless parents are involved in setting up projects, and planning, recruiting more staff from groups would help parents, and white staff. One staff we had in West London had a West Indian why children had certain problems, which some projects are making sure black and students are getting on for nursery nurses.

They believe that both in-service training should be given to staff, and that work in multi-cultural projects should be encouraged. The survey also points to a special problem. Working mothers find it particularly difficult to get day nurseries because they often do not use criteria used by social departments.

Piercing questions are being asked about the Genevan educational psychologists.



Nicholas Bagnall reports.

Piaget: under attack

Jean Piaget, architect of the Genevan school of educational psychology, whose works (or works about his works) have been on the compulsory reading lists of generations of future primary school teachers, has been having a bad time from his critics lately.

Until five years or so ago, attacks on Piaget were concerned mostly with his sampling technique, some of which he had himself questioned. His main thesis remained unchallenged: that young children's ability to learn and understand stages progresses in certain defined ways which invariably succeed each other in the same order for every child, and that it is impossible for anyone to skip a stage.

Now given this major proposition of the Genevan gospel is called in question. In the latest issue of the Journal of Educational Psychology, members of the Lancaster University Department of Educational Research, Geoffrey Brown and Charles Desforges, go through some of the more recent anti-Piagetian findings and point out that, "In other words, Piaget failed to try alternative hypotheses; when children behaved in ways that contradicted the theories, the Genevan psychologists modified the theories but did not abandon them."

But what are the practical implications for the classroom teacher? Mr Desforges said he thought the theories often promulgated in colleges of education significantly underestimate the conceptual abilities of children.

He went on: "Often student teachers are invited to think of children as being in a particular stage and to organize the children's learning activities round that stage. But we have shown that the 'stage' theory is not only conceptually wrong but empirically untenable too."

Dr Brown agreed. He and Mr Desforges cite evidence of children's behaviour which according to the Piagetian model should class the children as "precocious". Their first comment: "The exact proportion of heterogeneity which abandoning will tolerate without an interesting point."

One of Piaget's laws is that a child cannot learn to classify objects or make transitive inferences unless he has first manipulated concrete objects. Reinforcing this point, late in 1974, Piaget wrote in a personal letter to me to a symposium called *Piaget in the Classroom*, published by Routledge: "It is absolutely necessary that teachers have at their disposal concrete objects, and that they should merely use them to verify them (or not verify them) themselves through their own active manipulations. The observed activities of others, including those of the teacher, are not formative of new organizations in the child."

Such a certificate of minimum standards would be useful to teachers telling them which children needed special attention, but not employers. Teachers did not need standards for school leaving certificates. He argued that the present mark for 'A' levels is affected by medical science as a grade 'A' he said, and employers would not accept below a grade 1.

Fees protest

University vice-chancellors last week condemned the increases in tuition fees imposed on them by the Government. The increases were a "great mistake", they said.

In a statement the Vice-Chancellors' Committee said it believed that income from fees should not exceed 10 per cent of university income. Last year it pressed its case on Mr Fred Mulley, Education Secretary, who announced the rises in July.

Later it made strong protests to his successor, Mrs Shirley Williams, but "to the great regret of the committee our views have not prevailed."

Fees for home students go up from £182 to £650 a year. Overseas students will pay £650 instead of £416. But the rises for most home students will be paid by their local authorities if they receive a grant. In the main foreign students and a small minority of British students support themselves who will be affected.

The vice-chancellors accept that there is nothing that can be done now to reverse the rises and are concentrating on building up hardship funds for their students.

Dr Harry Pitt, vice-chancellor of Reading University, said it was intolerable that many students now half-way through courses would have to pay more than they expected when they first went to university.

Village schools to club together for survival?

Two small village schools in Northumberland may share the same fate in order to keep both schools open.

Northumberland education authority is looking at a scheme for Harbottle and Netherdon first schools, which are about six miles apart. Each has two teachers, and the plan is for them to share a head. Closure of one of the schools would involve extra journeys for many children who already travel a considerable distance.

Mr Alan Beith, MP for Berwick-upon-Tweed and the Liberal education spokesman, asked Miss Margaret Jackson, Education Minister, last week, why local authorities had not been told that sharing teachers could be one way to avert closure. Mr Beith is a passionate supporter of small village schools.

Miss Jackson's written reply in the Commons last week was non-committal. She said she had been told about the Northumberland proposal but that a decision had not yet been made.

Mr Beith said the DES was against small schools and he was worried that those who objected to closure would not get a fair hearing. "This is particularly worrying for rural areas where the village school is such an important part of community life and where long journeys for children may be the consequence of closure."

"I believe that there are several ways in which village school closures can be avoided, and I put some of these to the ministers in questions. The replies do not satisfy me that the value of village schools is being taken sufficiently seriously and I shall seek an opportunity to have the whole question debated in the House."

Parents in Marple Bridge, Cheshire, are to start a private infants' (and junior) school to replace Harrytown Convent junior and kindergarten school. Ransley, Cheshire, which is to close in September. They hope to use the former St Mary's Roman Catholic school in Marple Bridge, which has not been used since a new primary school was built.

A Hampshire village school's extension, built by parents and volunteers at a cost of £925, was opened last week.

Crandall county primary school, needed more space for its infants. Parents formed a school association in 1975. One of them who was a surveyor drew up plans and mothers and fathers started work last August. Only the roof and floor were laid by paid contractors.

Mixed views on mixed ability

Mixed ability teaching enthusiasts met an unexpected and welcome call to prove themselves at a conference arranged by the Programme for the Reform of Secondary Education this week.

Parents asked why some teachers were insisting on introducing mixed ability teaching and refused to be put off by bland assurances that older teaching styles had failed. Equally unsuccessful were attempts to lead the questioners off with claims that it would take too long to explain the rationale behind the new teaching, and that their queries were in any case outside the meeting's terms of reference.

The first sign that advocates of mixed ability teaching were not going to get it all their own way came from Mr Peter Newman, education officer of the Inner London Education Authority, who asked: "Why are you going into mixed ability teaching at all? You claim it is better for individual learning, but why? It needs to be spelt out and the facts have to be established first."

Mr Peter Davies, of Whitlchurch School, Cardiff, explained that the reason lay in a total suspicion of the way children had been categorized in the past. "Our predictions have so often been self-fulfilling," he said, a view that was backed by Mr Richard Kelly, dean of education at Goldsmiths' College. "But," came a cry from the hall, "we are not all committed or convinced. We need to hear your arguments, your case with some hard arguments." Since this drew little response Mr Harry Ree, a former education professor, gently chided those on the platform for their reluctance to speak.

"People who favour mixed ability teaching should be prepared to face the failures of it. They are in fact that it does not help the traditionally academic child aiming at A levels and higher education."

Mr Davis replied that this was more of a reflection on A level syllabuses than on mixed ability teaching methods but another voice from the floor assured him the great British public would not buy that: "Let us have some controlled experiments first."

The argument ended when a parent said: "It makes my blood run cold to hear how you propose an experiment with children. And how do you propose to recover the children you lose in the process?" Nobody had an answer for that.

Earlier the conference heard Mr Richard Kelly claim that mixed ability teaching was essential to the development of the curriculum. "The curriculum has to change in tune with a rapidly changing society," he declared. "That was not possible with streaming. Mixed-ability teaching gave priority to the individual."

"And," he added, "it carries the implication that control of what goes on in the schools will ultimately be in the hands of the teachers." He admitted, however, that mixed-ability teaching would only work when used by teachers who believed in it. "You cannot just go through the motions and get away with it."

Devon D-I-Ys fear takeover

by Bob Doe

The Greater Devon Debate—the open meeting called last weekend by teachers' unions with the exclusiveness of the Government's own regional conferences—did little to dispel the official Great Debate to be held in Exeter at the end of the month.

About 70 people attended and discussion tended to reflect their own particular interests rather than the agenda laid down by the Department of Education and Science. Most of them were teachers, with just a handful of parents and local politicians. There was a lot of anxious talk about a central government takeover of the curriculum.

Some pupils' parents were to point out, were drawn into discussion to some extent. One of the organizers, Exeter teacher Mr John Jones, commented: "Perhaps we should have had more of our real clients next time."

Unlike the DES regional conference, the Devon meeting opened with keynote addresses followed by small group discussions. The latter strategy when the group after the speaker had abandoned the room for the National Educational Research Society, dominated the afternoon.

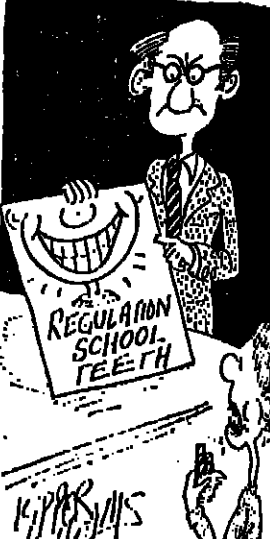
Mr Peter Mosley, head of Paignton School Modern, which was the subject of a recent DES survey, led off in the morning. Inspectors were sticking their necks out at last, he said.

"This is something we have been trying to get them to do for some time. Usually they sit on the sidelines and then tell you afterwards that you picked the wrong one."

He noted that mixed ability teaching had now come in for review in the HMI's recent modern language teaching. "Many of the current concerns arise directly from the fact of appropriately qualified teachers. There is no need for a greater need for more criteria of training than now if it were. He wanted to see more of some teacher retaining a suggestion of 'Near, Near...'

He warned against ministers meddling in the curriculum, and decisions about what to teach. The Schools Council is still the best bet for curriculum improvement," he said.

Education in science and citizenship would satisfy all the demands though a making on schools, he thought, should be part of every child's secondary education. Mr Phil Cliff, from the National



The tuck shop at Templeton School, Wilton, Essex, has been closed because Mr Roy Smith, head, felt the children were eating too many sweets instead of a school meal.

Piaget in the dock

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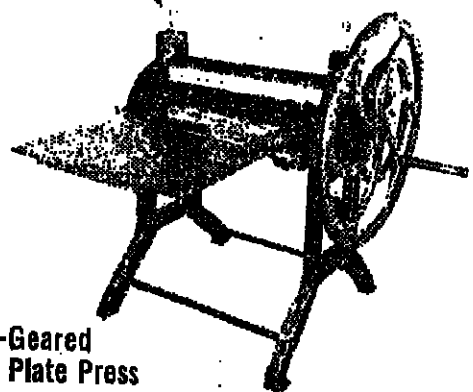
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Tutor is key man to the probationer

It is more important to probationer teachers to have a tutor on the school staff than anything else, says a report on one of the Government's pilot induction schemes.

The probationers, who are on a scheme running in Northumberland, said that being observed while they taught was the least useful form of help. More than 100 new teachers were asked to arrange in order of importance eight items provided in the induction programme during their first term.

They included having extra time without classes, meetings and courses outside school, meeting other new teachers, discussions in school, getting advice, having a teacher-tutor, an observer in the classroom and someone to go with problems.

All the probationers from whatever type of school put the teacher-tutor first. Second came a similar figure—"having somebody to go to with problems".

Mr Colin McCabe, of Newcastle University School of Education and evaluator of the scheme which is now in its third year, said: "From now on I suspect the whole of a teacher's professional training and development need to be looked at together and the move forward in the role of the teacher-tutor strongly supported."

The other Government pilot induction scheme is running in the Liverpool area.

Evaluation Report, No 16, Northumberland Pilot Induction Scheme, School of Education, Newcastle University.



Shared lesson: Third-year pupils at Walkden High School, Manchester, bring old age pensioners into their science session.

Reward the engineers call

by Lucy Hodgson

Secondary schools and the Civil Service must stop discriminating against pupils with a bent towards engineering if Britain is to have better engineers, says Guy Neave in *Patterns of equality*, an NFER report last week. The two should be reformed simultaneously.

"The maintained secondary school, traditionally, has discriminated against the able student who wanted to follow a 'mixed' combination of subjects—arts, science and technology", he says in a postscript to the report which he wrote with Sally Jenkinson, senior lecturer in politics at North London Poly.

"This discrimination has taken the form of making it difficult or obliging the student to opt for subject groups he did not wish to take and perhaps forcing him or her to drop out of school when he might otherwise have been the best."

The report, which is based on a report to the European Commission on the influence of new structures in European higher education upon the equality of educational opportunity, argues that there is probably more talent for, and interest in, technology among pupils than the statistics show.

It would be pointless, it says, to

reform the school syllabus—to incorporate compulsory maths and science—without reforming the entrance exam for the administrative grade of the Civil Service. Engineers must be rewarded with status.

In France the engineer civil servant is at the top of the profession, exam which often takes more than two years to prepare after the Baccalauréat. In Britain engineers who move out of local government penetrate the central administration from below, rarely, if ever, getting beyond the middle grade.

"The structure and conditions of entry to any outmoded and value entrenched body in the value making corps itself—the Civil Service needs to be reformed."

Imagine, say the authors, what the reaction of every headteacher, university professor and vice-chancellor in Britain would be if it were decreed that five years hence, Civil Service exams would be open only to joint honours degree graduates in at least one maths, scientific or technological subject.

No sixth form or institution of higher education would delay long in changing the syllabus.

"In many ways, as it is conceived at present, the Civil Service entrance examination resembles that curious university television quiz show which allows—purely by coin-

cidence—historians and chemists to shine, but scientists, save the question here and there, to suffer impartiality, to appear as losers."

"If the flood of history or economics graduates is kept by it is because that is the path educational righteousness has led to the high prestige and 'respectable' occupations' at the top of which the Civil Service."

The authors blame most high educational institutions for not doing their job as giving school leavers who have already specialised in a area even more of a specialist. It would be better to take young people with various qualifications and "transform" them with a nation's needs in mind.

The shortage of good engineers, they say, lies much more squarely in the hands of the Government than has been supposed. In Europe, as in Britain, the Government service's own concept of what makes the educated graduate, exerts a powerful influence on the whole nation's curricular patterns in education.

"Only in Britain does that concept and those patterns impose so utterly and so consciously the values of science and technology." *Patterns of equality* by Guy Neave NFER Publishing Company, 2 Jorving Buildings, Tavistock Avenue, Windsor, Berks. £4.50.

O levels—350 ft down

Three submarines have passed their O levels which they sat while their submarine HMS Ocelot was 350 feet below the surface of the Mediterranean.

Chief Petty Officers Robert Stewart and Leslie Davies passed English O level, while electrician Mark Hickman passed physics—which included small experiments carried out on board.

Last year the boat was sent to the Middle East and the exam papers had to be mailed to Malta, to be picked up by the submarine on its way to the Suez Canal. They were collected by the submarine's education officer, Lieutenant Rick Williams of the Canadian Navy who looked them away until the exam day.

One of the main difficulties was finding a quiet spot where the men could do the exam. They chose to do it when the submarine was submerged and running on her silent electric motors. Leslie Davies took his exam between the torpedoes so as not to be disturbed.

As the boat was at sea for a long period the proper timetable for papers could not be followed. However, the examining board agreed that the candidates' commanding officer, Lieutenant Commander Douglas Littlejohns would certify all was "above board". A belated result was sent to the submarine on her return to the United Kingdom.

Curbs on young Swedish visitors

The Swedish Government-backed student organization SIS has decided to send home automatically at their parents' expense any of the young people it brings to Turkey who are convicted of shoplifting or drug offences. In an attempt to cut down crime among the SIS students it brings each year to the city, the organization has decided on less free time and more education.

York's Vikings

York Archaeological Trust is appealing for £100,000 to complete the excavation of the Viking site in the city. Mr Magnus Magnusson, broadcast and Viking scholar, says it was under Viking kings in the ninth century, an, that York (Jorvik) grew into a major trading city.

Irish diary



Embarrassing revelations

The smouldering discontent among members of the Association of Secondary Teachers about staffing ratios in Catholic secondary schools was fanned into a blaze this month by revelations that some school managers were not even employing the number of teachers they were entitled to under the Department of Education's quota.

Up to a few years ago, the allowed teacher-pupil ratio in these 650-odd schools was 15:1, but the Department of Education reduced it to 20:1 in a move which was bitterly resented by the ASTI at the time, and which has continued to be a source of controversy. This is especially so because the ratio in the local authority vocational schools is approximately 17.5:1.

The department justifies the difference mainly on the grounds that the practical subjects, which form a much larger part of the curriculum in the vocational schools, need better staffing ratios than the academic subjects in the secondary schools.

It has now emerged, as the result of a series of parliamentary questions, that 131 schools out of the 650 have actually employed a smaller number of teachers than the

Unfilled posts fan flames of discontent

quota allows. As all incremental salaries of those teachers are paid by the state (apart from a £400 contribution by each private school) this means that the best part of £400,000 of state funds has not been taken up by these schools. The total number of posts involved is 180, which means that some schools may have one fewer teacher than they need.

These disclosures are significant for two reasons. In the first place, they come hard on the heels of a growing campaign by parents of children in the private secondary schools for more state aid: this campaign must be somewhat blunted by the fact that schools could have a lot more money just by asking for it.

Second, teacher unemployment, especially among the newly qualified, is reaching staggering proportions. Despite rising enrolments, a good 50 per cent of the 1,500 teachers who leave the universities with a Higher Diploma in Education next summer will find themselves jobless.

School secrets

The reasons for the schools' failure to take up missing posts are unclear. In some cases, financial stringency may be making it difficult for the schools concerned to raise the £400 "school salary" (normally taken out of capitation grants which are also paid to private schools by the state) to employ a new teacher.

In others, religious orders may be "holding" positions for mem-

bers of their own orders who are currently completing their teacher training or university courses. If they employed lay teachers they might—especially in view of impending legislation to protect workers against unfair dismissals—find it difficult to make room for their own men or women when their training has been completed.

As interesting to the ASTI is the fact that the Minister has refused to identify the schools concerned, even in answer to a Parliamentary question, on the grounds that the schools are private institutions and that it is not practice to reveal details of their financial and other affairs. The union is pressing for disclosure so that it can mount a campaign of industrial action at the offending schools.

Over the top

The irony of the thing is compounded by the further revelation that there are still a number of schools which have more teachers than they are allowed under the quota. About 87 teachers are involved. They were members of the staffs of amalgamated schools, or are in schools that have not yet reduced staffing.

When the change in pupil:teacher ratios was decreed, it was announced the schools would be given five years to bring their ratios into line with new levels. That five year period expires this summer, and the Minister for Education, while hopeful that rising enrolments would prevent schools having to cut back has promised to consider individual

cases sympathetically if they are still over the limit when the axe falls.

Teacher power

The details of the proposed new Teaching Council underline the success of the teacher unions over the past five years in fundamentally changing the suggested membership of the body to give themselves an overall majority.

As originally envisaged by the Higher Education Authority, the Teaching Council was to have had relatively few serving teachers, and a notable input from several Government departments, such as the Department of Education and the Department of Labour.

Another battle was fought and won by the Irish National Teachers Organization, originally allocated only three out of nine teacher seats. Its membership however is roughly equal to that of the two second-level teacher unions combined and in the event, it got nine members, as against 12 for the second-level unions.

It seems likely that the representatives of teacher unions will be appointed by the union executives, rather than elected by the membership at large. An advisory body which reported to the Minister on this some time ago argued strongly in favour of nomination on the grounds that in Scotland only 20 per cent of teachers actually voted for the teacher representatives. This may not be popular in some unions, all of

which have some degree of gross roots militancy and hostility to their own executives' policies.

Religious power?

One large and so far unrepresented group on the proposed council is, paradoxically enough, the group which is traditionally seen as the most powerful—those members of religious orders who are currently teaching in second-level schools. They are barred from membership of the ASTI, which considers that, as members of the employing organization, they would be facing a major conflict of interest in a dispute which would unfit them to act as full members of a trade union.

They are allowed to join the Teachers Union of Ireland, which organizes teachers in the vocational schools, but so far only a handful have done so. At primary level there seems to be no objection to their joining the INTO, but again few, if any, have ever done so.

They have an organization of their own—the Association of Post-Primary Teachers of Ireland—which falls considerably short of trade union status, but which does hold annual conferences. It is to be expected that the Minister for Education will soften the blow of non-representation by including at least one of their members among his nominees to the proposed council.

John Horgan

In brief

Belfast school reopens

A small primary school in Sandy Row, Belfast, is being reopened and converted with £400 from the British Council of Churches Fund for Ireland. The fund, which was launched by the BBC last November, has collected about £8,200 but more money is urgently needed for other projects. The aim of the Sandy Row project is to preserve something of the social fabric of the area and convert one of the classrooms into a workshop with benches and tools.

Bexhill reorganized

Plans for reorganizing Bexhill's schools along comprehensive lines have met with the approval of parents. In September this year East Sussex County Council will be reorganizing Bexhill Grammar School as a sixth form college and the Down School as a high school for pupils aged 11 to 16.

Replace a tree

Avon's 500 schools are being asked to take part in a National Trust scheme to replace trees destroyed by Dutch elm disease. The county council is supporting the trust's Jubilee Year appeal for each school to raise £20 to sponsor a tree.

Views on Schools Council?

The review body which is considering the role, constitution and structure of the Schools Council is seeking views on the council's activities from outsiders. Write to the secretariat of the review body, Schools Council, 160 Great Portland Street, London, W1, by March 25.

Correction

Bill Law, whose article "The growing up of guidance" was published in last week's *Careers Extra*, is senior fellow at the National Institute for Careers Education and Counselling.

Dressing for Turkey

A group of pupils and a teacher at Hildale Comprehensive School in Warley, West Midlands, have won a trip to Turkey, by courtesy of British Petroleum. They won the BP Travel Clothes Design Competi-

People

Mr J. M. Ferguson, formerly chairman of the engineering board of the Science Research Council, is a new member of the University Grants Committee.

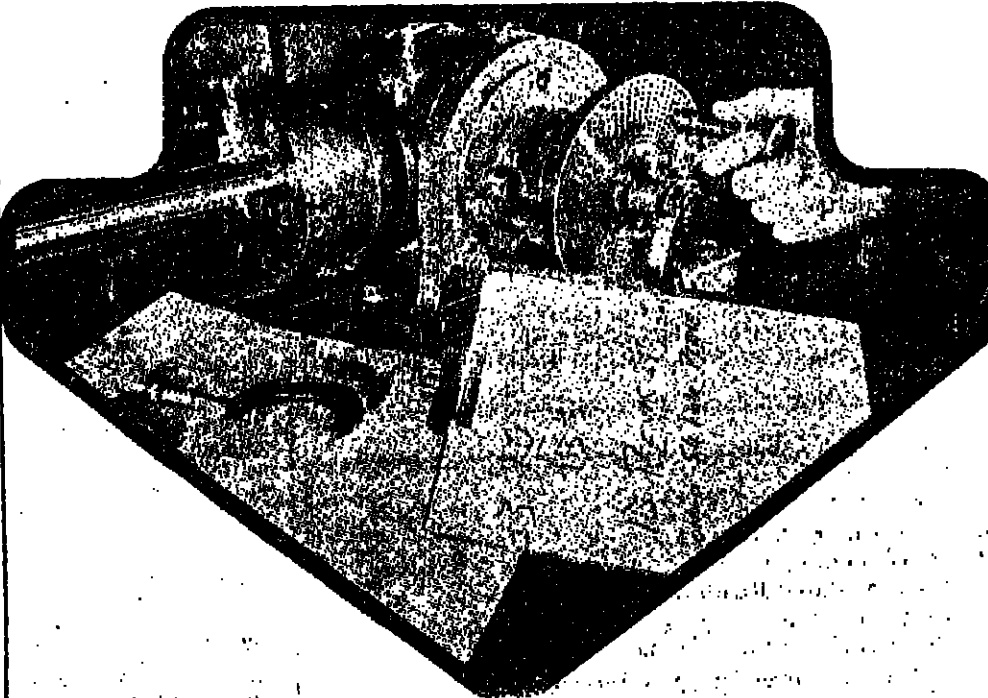
Schools

Mrs Anne Mustoe, deputy head of Cobham Hall, Kent, is to be headmistress of St Felix School, Southwold.

Mrs H. R. Glaze, head of Brom Barns Infant School, in Hertfordshire, is to be head of Lavnside Infant School, Biggleswade.

Mr Paul Thompson, reader in social history at Essex University, is to be Hoffman Wood Professor of Architecture at Leeds University.

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France All change for 5-day week?

from Mark Webster

PARIS
The Council of Ministers has approved the long-awaited reforms of the "scholastic rhythm", which include proposals for shorter lessons, different formulae for arranging the week and a realistically longer Easter term. The ministers also approved efforts at encouraging sport in and out of school time.

The measures will come into effect from September, starting in the first year of secondary education provided the schools can get organised fast enough. The big difficulty is likely to be whether they can agree on the organization of the school week.

The week will be either "concentrated" or "spread" as M René Haby, the Education Minister, has dubbed the choices.

The concentrated week would leave Saturday mornings free and academic work would be done for five mornings from Monday to Friday. Two afternoons a week would be set aside for physical education, art and manual work. The other three afternoons would be open to sport and cultural activities.

The spread week would keep Saturday morning school while sport and academic work would be interspersed throughout the five and a half days.

Although educationists favour this arrangement it will not be so popular with parents and teachers, especially those who like to go to the country for the weekend.
At present, the Easter term is interrupted by examinations and school start by the start of the summer holidays. The *Brevet d'Etudes de Premier Cycle* (BEP/C), which is normally taken in 14, and the baccalaureat will now be deferred until the first two weeks of July, as from July 1978. To compensate for the extra workload which the postponement will create both examinations will be simplified.

The BEP/C will automatically be awarded to anyone passing into the second cycle and in the baccalaureat there will be no oral examination for those getting over 50 per cent in the written test as opposed to 60 per cent at present.

On the other hand, the oral will remain for borderline cases getting between 40 and 50 per cent and there will also be a written test in geography and history for all candidates—subjects which have previously appeared as part of the oral.

Behind the new moves is an educational philosophy which M. Haby has set out in a brochure which is to be widely distributed called "Knowledge and Knowledge". Compiled with the help of teachers, it lists the basics which he believes should be included in courses for children aged between 11 and 16.

It suggests the introduction of some new topics for 11-year-olds, including physics, chemistry, economics and practical subjects such as bringing up children and pollution.

Along with the shorter number of hours in class—21 and a half instead of the present 23 hours a week, not counting sport—M Haby suggests that homework should be limited to 11 hours a week, including one hour each of French, mathematics and modern languages.

Holland Children in homes 'miss caring relationship most'

from Lynn George

AMSTERDAM
The need for far more individual attention is a recurring complaint from children placed in residential care, according to a recent survey of the relationship between these children and the people in charge of them.

The survey, by the University of Groningen, was carried out among 99 children (57 boys and 42 girls) between the ages of 11 and 18 from 12 residential homes.

By allowing the children to formulate their own grievances in the form of essays and individual and group talks, the survey also breaks away from the tradition in Holland that such children should be "seen and not heard".

The children complained that their group leaders (adults in charge of up to 12 children in the homes) were often too busy to listen to problems and unsympathetic when they did. It was difficult to build up a trusting relationship with them.

In some cases, the children also distrusted one another. Punishments were often seen as serving little purpose, and although the children were against physical punishment, 10 per cent of their group leaders had in fact used it (in the parental home 43 per cent of the fathers and 35 per cent of the mothers had used physical violence).

The responsibility for the neglected child in Holland has always been left to private denominational child welfare organizations, which are linked to form the National Child Welfare Federation. Although playing a secondary role, the government has traditionally cooperated with private initiatives.

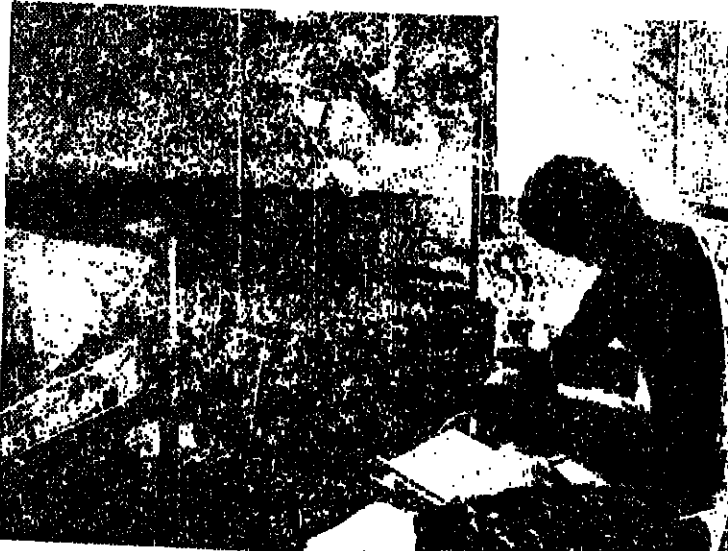
The latter are broadly divided into three types. If a court places a child under supervision he is entrusted to one of the organizations for Family Guardianship, which appoints a guardian to take care of the child's well-being while he continues to live at home.

Should a minor be made a ward of court then he comes under the responsibility of a Society of Guardianship, which places a residential home.

The homes, the third primary category, are sub-divided into general educational and special institutions. These must be approved by the Ministry of Justice.

The Government subsidizes private child welfare work on the scale and may grant subsidies towards the building of new homes. Further, each residential home receives from the Ministry of Justice an amount varying from £11,129 a day for each child.

At present there are about 100 private and 25 Government residential homes for just under 200 children, including orphans. Children stay on average 13 months.



Group leaders are often "too busy" to listen to problems.

Italy Position of Church as 'special case' under attack

from Dalbert Hallenstein

VERONA
Religious education has become a burning political issue as the Italian Parliament debates the Government Bill to modify church/state relationships. The debate centres around contradictions deriving from the 1829 concordat and the 1984 Italian Republic Constitution which incorporated the Concordat.

Although the Constitution guarantees the complete equality of all religious confessions, Article 36 of the Concordat states that "the Italian state considers that the teaching of Christian doctrine, according to the forms sanctioned by the Catholic Church, is the fundamental and crowning point of public education."

In the elementary schools prayers are compulsory, and one hour a week is set aside in the middle and secondary schools for religious education, taught by teachers authorized by the Catholic Church.

Parents may request exemption from prayers or religious lessons, but opponents of the presence of religion in the schools claim that exemption marks a child as "different".

The issue is now under consideration by the Italian Constitutional Court. Recently the parents of a seven-year-old girl challenged the legality of compulsory prayers before school, claiming that the obligation was extremely harmful to the non-religious education which they intended to give their daughter.

Such a non-religious education, they claimed, was a right guaranteed by the constitution. Although they recognized that they could have withdrawn their child from school prayers, they have decided to press the challenge as a test case.

The current Reform Bill, proposed by the government, changes very little as far as religious education in schools is concerned. The Liberals are therefore pressing for either the complete abolition of school religious instruction or for its transformation into courses of comparative religion which will encourage tolerance and understanding of other faiths.

Television continues to attract the strongest blame for the violence in American schools. Michael Binyon reports

The box carries the can

WASHINGTON

School violence in America costs taxpayers over \$600m a year, according to a new study by a Senate sub-committee. The figure is more than the total cost of textbooks in 1972 and equal to the cost of hiring 50,000 teachers across the country.

The report is the result of three years' study into what has become one of the overriding concerns of the general public. It was introduced in the Senate this month together with legislation that would tighten up law enforcement in juvenile delinquency programmes and decrease reliance on suspending pupils for less serious offences.

The report said fire damage was the main result of vandalism, followed by breaking windows, the destruction of property in and around schools and theft of equipment. Violence occurred more often against pupils than against teachers. Most school violence in larger city school districts could be attributed to youth gangs, while delinquency in suburban and rural districts was more the doing of truants and outsiders.

The study relies heavily on a survey by the National Education Association, the largest teachers' union in America, which has taken a lead in focusing attention on the problem. An NEA survey found that over all the country school districts were up 58 per cent from 1970 to 1974. Sex offences increased by 62 per cent, drug-related crimes by 81 per cent and robberies by 117 per cent.

Senator Birch Bayh, who introduced the Senate report, said he expects more than 11,000 television murders, for which the NEA that there were about 70,000 serious assaults on both teachers and pupils.

One of the difficulties, the report pointed out, is that teachers often have no alternative to suspending a disruptive pupil from class. For such things as smoking or being late, principals and teachers felt there should be other ways of disciplining children than putting them out on the streets.

The Senate sub-committee said



Violent exit during a bussing protest.

one of the contributing factors to violence was boredom, and criticized curricula that failed to hold the attention of problem pupils. It suggested instead more offerings in art and music studies, and better emphasis on business and industrial opportunities after school.

As part of the Juvenile Delinquency in the Schools Act introduced this month, the government would help local authorities set up special "alternative" instruction in and out of classroom. It would also provide some backing for "safe school centres".

Local authorities would get a grant of 50 per cent for the architectural changes needed to make schools proof against vandalism under a programme established in 1974. Senator Bayh was hopeful that this programme would get \$100m this year.

School violence has been the subject of a series of conferences and seminars around the country in the past year or so. Nobody has come up with any clear answers, but blame has fallen again and again on one or two factors, television being the one most often cited.

"Young people spend more time with the idiot box than with their parents or in schools", Mr John Ryor, President of the NEA, said at a conference last year. "Too many TV programmes have anything but a positive influence on our youth. They capitalize on the sordid, the violent and the just plain garbage."

Mr Ryor reckoned that the average 14-year-old had been exposed to more than 11,000 television murders.

Television companies argue, rather lamely, that it is no good urging them to reduce the number of crime series and the amount of violence, if—as viewing figures prove—it is what the public wants.

Nevertheless, in the last year they have made efforts to keep down the level of explicit television violence, no doubt encouraged by a popular movement to boycott the products

of those companies which sponsor or advertise on the most violent programmes.

A special conference was held on television violence recently in Los Angeles—a city with a reputation for violent schools. A number of calls were made for parents to organize a mass campaign against television companies. But Dr William Riles, the influential Superintendent of Public Instruction in California, argued that it was better to try to encourage schools and television to form a constructive partnership.

Los Angeles has made several well-publicized attempts to tighten security in its schools, including giving teachers in rough areas special wristwatches with miniature radio alarm systems inside them.

The Senate report was insistent that schools should not turn themselves into armed fortresses, and it is only fair to say the great majority of American schools are places where real violence is unusual, and a lot of good teaching and learning goes on in a happy and peaceful environment. It is often the fear of violence based on the experience of difficult schools in big cities that leads to parental worry rather than actual incidents.

One lecturer at Stanford University believes much of the difficulty stems from the total unpreparedness of most new teachers to deal with classroom disruption.

Dr Daniel Duke, from Stanford's prestigious School of Education, runs a course on school discipline for prospective teachers. He believes schools should do far more to recognize good discipline as an actual goal, and think more seriously about how this could be achieved.

Gallup Polls for the past seven years have named school discipline as the main concern of the public in their attitudes to school. Ironically, Dr Duke's course of discipline is virtually the only university course of its kind for prospective teachers.

Private schools seek further state aid

Mike Duckenfield, recently in Copenhagen, reports on how Denmark finances its independent sector

Increased public investment and larger schools are two of the main recommendations of a recently published report on the future of the 476 private schools currently receiving state subsidies.

Prepared by an Education Ministry working group set up five years ago, the report focuses on the schools' financial position and whether subsidies are being used efficiently. During the last six years, support has more than doubled to 775m Dkr (£77m).

Unique in Scandinavia, Danish law stipulates that seven to 16 year olds must receive a compulsory education rather than schooling. Tuition, if judged of a satisfactory standard, can be given at home or school, and there is a century-old tradition of parents starting their own schools.

At present nearly 12,000 children aged seven to 13 attend private *friskoler*, nearly 26,000 teenagers between 14 to 16 go to private lower secondary schools (*gymnasier*) and a further 6,100 over-16s take studies

at private upper secondary schools (*gymnasier*).

Tuition at all three schools generally allows the purposes, though not necessarily the methods, of instruction at state comprehensive and secondary schools.

Divergence between the two systems decreases as pupils get older, partly due to the flexibility of tuition in the first years of State education and the later need to gear learning towards nationally recognized examinations and qualifications.

In line with this, the proportion of pupils attending private schools increases with age. While only 5.2 per cent of seven to 13-year-olds attend *friskoler*, 9.1 per cent of the age group go to private lower secondary, and 12.1 per cent to upper secondary schools.

In addition, another 15,400 students aged between 16 and 25 take studies not parallel to those in state institutions at 220 private folk high schools and agriculture and domestic science schools.

The report says that the government should require to pay 85 per cent of the costs of private education when it corresponds to that given in state schools. This includes both teachers' salaries which account for about 60 per cent of costs—and other running expenses.

However, the working group also lends support to the government's decision two years ago to start

raising funds for private schools direct from local authorities according to how many private schools pupils live in their area.

Previously, finance was not raised locally and block grants were given to the local authorities who were then effectively able to invest between the private and public systems.

The main factor influencing costs was school size. On average private schools for seven to 13-year-olds only housed 77 pupils and those for 14 to 16-year-olds contained 292. As a result, hourly pupil costs were 25 to 30 per cent higher than in state schools during the age of compulsory education. At the upper secondary level, where private schools averaged 510 pupils, the difference was much smaller.

In future, state loans would be interest free—against the present 4 per cent—with repayment of only 3 per cent annually. Private schools would be free to triple the existing 30m Dkr a year.

The report also proposes a modified procedure for parents wanting to start a school. If they wish to receive a subsidy, which they nearly always do, a letter should be sent to the local education authority, outlining proposals on teachers and facilities. After six months' teaching parents can apply for government aid. This state will also offer a bank guarantee during the first year.

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LETTERS

Clinical approach is wrong

Sir.—The recommendations of the Court report (TES, February 25, March 4) seem to be more concerned with the power and status of doctors and psychologists, than with the quality and relevance of the services provided for them.

Your leader underlines the expenditure necessary if the Court recommendations for clinic-based services in schools are to be usefully carried out. There are also more fundamental objections. Clinical treatment by definition involves withdrawal from the situation where the child's problems have been apparent, normally in the form of individual psychotherapy. It is interesting to note that of 100 cases referred to the child guidance service in one London borough only one was actually taken for therapy.

It is my guess that where psychological services have fallen into disrepute among teachers it is because the educational psychologists have worked too much in clinical settings as part of the educational service as a whole.

Who inspects the inspectors?

Sir.—Mr John Blackie (March 4) suggests that my evidence for the apparent lack of contact between the head of the DES and the Inspectorate is the slender for the weight of my comments. But in a letter short enough to qualify for publication, evidence must necessarily be selective, hence my use of an authoritative statement by Mr Blackie's own use of evidence is odd. I find no reference in the select committee's report on HM Inspectorate, published in 1968, to justify his statement that it approved the part played by HMIs in the matter of further education courses.

On the contrary, the committee's recommendation no. 10, dealing with HMIs and further education, suggested the setting up of a working party, one of whose tasks would be "to examine the allegations are needed in this branch of the Inspectorate". Such a suggestion can hardly be regarded as an expression of overwhelming confidence in the branch's previous conduct, as revealed in evidence to the committee.

Nonsense about engineers

Sir.—Sir Derman Christopherson's letter (March 4) of unemployed engineers, because of his alleged glut of graduates three years from now, is misconceived.

Governors talk a lot of sense

Sir.—I was surprised and disturbed to read the two accounts of governors' meetings by your apprentice (February 25). As two extreme views, they may have some partial truths, but I hope they will not be taken to be typical.

I myself have been teacher-representative on my school's board for two years. In that time, the governors have been presented with detailed breakdowns of examination entries and results and have never been slow to question and comment realistically upon them.

How the BBC keeps in touch

Sir.—The impression gained from the report in the TES (March 4) on School Broadcasting Council's evidence to the education sub-committee of the House of Commons Expenditure Committee was that there is no audience research by BBC school programmes. In the evidence submitted to the sub-committee, the full range of the council's research and evaluation committees was described.

In addition to the advisory network at local and national levels, the council's education officers and BBC production staff undertake local pre-programme inquiries into schools' needs in order to reach the objectives for a series formulated by the advisory committees of the council.

Freudian perspective on pupil profiles

Sir.—I would like to add some background information to the article "Assessment of Pupils by Profile" (March 4).

Money back for 'open' course

Sir.—As a student of the course, "Schooling and Society", I would like to make a few comments about the course. After ploughing through the first three units and part of the fourth, as well as most of the relevant reading, I can only say that the mixture is the same as in previous courses, but more blatant and arrogant in its intolerance of any other point of view.

In short, I can only label it as a packaged recipe for anarchy and chaos, unrelieved in its bias by any ray of hope either in the goodness of God or man, nor any salutation to the achievements of either.

OU books no ordinary books

Sir.—In discussing Professor Gould's remarks on the Open University's course "Schooling and Society", I think one important difference between the Open University and other universities ought to be borne in mind.

Hindi and Urdu are more useful

Sir.—I was surprised to learn (March 4) that a pilot project has been set up in Bedford to teach immigrant children Hindi and Urdu.

Tory style

Sir.—Your correspondence columns have recently contained a number of letters from Tory readers expressing strongly held and diametrically opposed views on the education policies advocated by Dr Rhodes Boyson.

Loaded questions

Sir.—Neil Kerr (March 4) misses the point made by Mary-Lou Clarke when she criticises the low response rate of 13 per cent in the North Eastington Conservative Party's education survey.

How do I know you're not merely subordinating our real interests and the basic purposes of education to the needs and profits of the market place?



Open mind on evolution

Sir.—As David Watson makes clear in his letter (March 4) an important issue raised by his case is that of indoctrination. The indoctrination he mentioned concerned the presentation of only one view of Genesis, but closely tied up with this is the indoctrination of evolution theory through science teaching.

Mr Watson is quite right to say (in his book *The Great Brain Robbery*) that "the present dogmatic teaching of evolution... is closely akin to brain-washing".

Time to look at pseudo art

Sir.—I was disappointed, though not surprised, to observe that in an edition of the TES largely concerned with primary school education (February 11), very little comment was made on the subject of pseudo art.

English does no service

Sir.—I read with interest your summary of the HMI report (TES, February 18) particularly the observations concerning modern languages.

Loaded questions

Sir.—Neil Kerr (March 4) misses the point made by Mary-Lou Clarke when she criticises the low response rate of 13 per cent in the North Eastington Conservative Party's education survey.

What about the earth sciences?

Sir.—Who is being invited to the regional meetings organised by the Department of Education to promote its great education debate? Neither the reports in your columns, nor repeated telephone inquiries to the DES itself have made me any the wiser.

Incidentally, since I paid £5 a year's tuition in learning a scholarship to do the readers of the paper think I could claim a grant of £5 since the £5 is a university full grant of my expenses and I have paid £5 in my own business.

Loaded questions

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Mr Watson is quite right to say (in his book *The Great Brain Robbery*) that "the present dogmatic teaching of evolution... is closely akin to brain-washing".

First, "evolution theory" is taken to refer only to the gradual modification of one species into another. Second, "natural selection theory" refers to the measurement of natural selection and its effects, as in the famous studies of pepper moths and snails. Third, the crucial part of Darwin's theory asserts that natural selection causes evolution—it links the second theory with the first.

The second theory is in my view a perfectly respectable field of science, and no complete madhouse about it is being taught. The third theory, however, can be shown to be untestable, in a Popperian sense. On this basis, it can also be shown that our teaching of it accords with a criterion of indoctrination, such as that of Snook.

Subtle points

Sir.—While sympathising with the personal plight of Mr David Watson, dismissed from his teaching post for his refusal to conform to the Hertfordshire agreed syllabus of religious instruction, I must challenge the basic presupposition in his letter.

Mr Watson makes a logical error common wherever strongly held but minority views are being expressed, whether these be flat earth theories or literal interpretations of the Adam and Eve stories. This is the assumption that there are but two schools of thought, one's own and the other.

Miserably, intellectual debate is more subtle than this. There is, surely, a whole range of interpretations of the Book of Genesis spreading from Mr Watson's particular view at one end of the spectrum, across a broad band of slightly differing ways of interpreting Genesis as theologically meaningful, to a view that dismisses the book as merely pre-scientific guesswork.

It would be professionally irrationally to present in school an interpretation from either end of the spectrum as though it carried as much weight as the main part. The task of a county grammar school, and of its religious education advisor, is presumably to see that children in school are given, as far as possible, a consensus view from the middle bands since this represents the balance of informed opinion and scholarship on this particular issue.

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Sport Kim's star is still rising

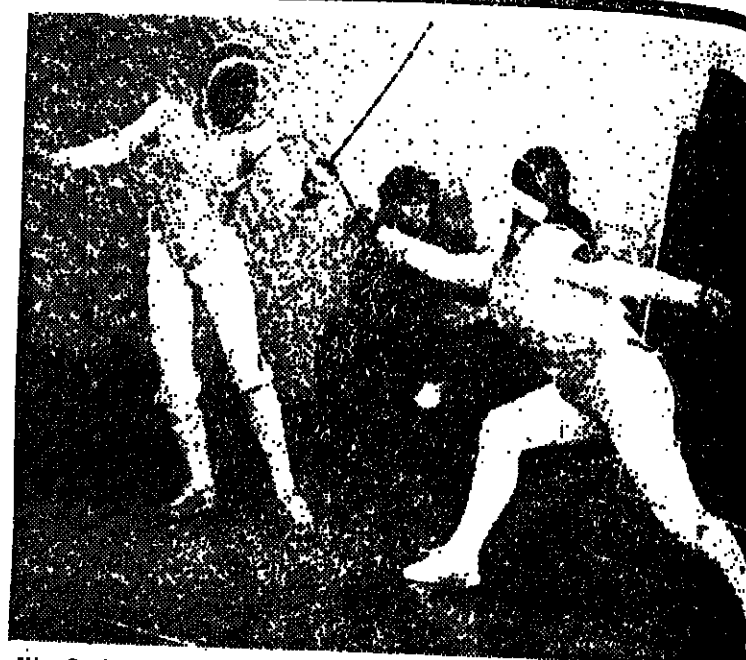
by Marjorie Pollock Smith

The British age groups foil championships, fought at Cranborne School, Basingstoke, on Saturday meant a tough day's fencing for under-16 and under-18 girls.

The 66 girls had qualified to meet in the final series from their own strenuous territorial championships. By the time they were reduced to six for each final, five English and two Scottish regions were represented.

The under-16 title was won, after a triple barrage, by Kim Cecil (East), a steadily rising young blade who was third last year and who in January won fifth place in the more severe and exacting British under-20 championship. The other five finalists were all under 14 years ago.

Fiona McIntosh (East Scotland), who in 1975 and again last year was under-16 champion, made an auspicious debut among the seniors by winning the under-18 title. She was beaten only by Pippa Bell (South West) a previous senior finalist. Fiona, another steady climber, was third in the British under-20 championship and has been named as second reserve for the World Youth championship team. First reserve for this is Debbie Hall, who won the under-18 title for South West last year.



Kim Cecil (facing camera): winner at last.

Anna Charles (East), under-16 runner-up last year and this time fencing in her first senior contest, was second on hits average ahead of Dawn Patterson (Central Scotland) and Pippa Bell (South West).

For Cambridge University fencers 1977 will go down as a vintage year. A week after winning three of the six British universities titles they defeated Oxford for the first time running in both men's and women's matches and won second place (Mark Thompson) in the British junior foil championship, the Doyné Cup.

The men's inter-varsity match started in 1897 and is the oldest annual still running. Last week, Dulwich College, Cambridge, wound up with a 7-2 foil score (total 17-10). Mark Slade, British top under-20 sabreur and the new British universities champion, and Mark Thompson, in foil, were defeated for Cambridge, while Renthum won all his epee legs for Oxford.

The girls, fielding the same team as last year when they only beat Oxford on hits after being eight times by 13-3.

Weightlifter goes after double

Peter Pilsent, of St Nicholas Grammar School, Northwood, Middlesex, should tomorrow complete a rare family double by winning the middleweight section of the schools national weightlifting championships at Heathland School, Hounslow, Middlesex. His older brother, Stephen, won the national senior middleweight title in February.

As Peter is one of the outstanding lifters in Western Europe, few doubt that he will win. Last year, as a lightweight, he won the schools title, breaking two records in the process. He was to break more records during the year and in the summer came second in a four-man power pentathlon in West Germany. He frequently lifts totals greater than those by boys in the heavier weight categories.

Mr Denis Mulkerin, the schools secretary of the British Amateur Weight Lifters' Federation, and head of Heathland School, says it is unlikely that even the lifters in Communist Europe "could produce his equal".

Two other boys stand out among the competitors: Robert Shepherd (St Barnabas RC School, Bristol), holder of the bantamweight records, and Cliff May, of the host school, in the featherweight division.

Fifty-six boys have qualified for the finals, which is slightly fewer than last year, but only because the qualifying rounds have been made more difficult. Had this not been done, says Mr Mulkerin, there "would have been an unprecedented 214 entrants".

Breakthrough for cyclists

Schools cycling has made a significant breakthrough in the north-west with the black affiliation of every school in the Liverpool authority area to the English Schools Cycling Association.

Local association leader Mr Geoff Hewley rates it as a major achievement in a football-dominated area.

Merseside is out to show it is a strong force in schools cycling. It has already tendered for and got the right to run the association's two prestige championships—the circuit race and time trial—in early July.

Encouraged, the local committee of the parent body, the British Cycling Federation, asked for a district team in the association's three-day Butlin International in June. The request became their first but only disappointment, for Esca has declined, pointing out that it already has more teams than it can handle.

If Esca can bring its schools strength on Merseside up to, say, North or Birmingham, it will only be filling a major gap in the cycling map, because Liverpool in general and Kirkby in particular have long been a breeding ground of adult cycle racing champions and internationals.

Wembley day

The English schools under-15 football team, play the first of their 1977 Wembley matches tomorrow against Scotland with the same squad that defeated Northern Ireland 4-1 at Blackpool. Nick Merry (Oxford) with two goals, Mark Ross (Kings Norton) and the captain, Mike Pittaway (London) were the scorers.

Last year, at Celtic Park, England beat the Scots 3-1.

Elizabeth gets gymnasts' badge

The immensely successful *Sunday Times* gymnastics award scheme, run by the British Amateur Gymnastics Association, reached another remarkable milestone last week when Elizabeth Powell, 11, became winner of the two million badge.

The first was issued in October, 1971, to mark the occasion Mr Denis Howell, the Minister for Sport, presented Elizabeth with a gum replica of the emblem.

Elizabeth, who is a pupil at Bishop Parker RC Combined School, Bletchley, Buckinghamshire, was accompanied by several other gymnasts from her school, the head teacher, Mr Nora Walker, and the sports mistress, Mrs Pamela Lower.

After the presentation, the group put on a short gymnastic display.

'Learn from Continent'

Britain must follow the lead of the continentals and recognize that youth holds the key to the nation's sporting future, says Mr Walter Winterbottom, the former England football manager, last week.

In Holland, for instance, thousands of kids come out from the straight to the local football clubs to learn the skills of the game at a very early age.

Mr Winterbottom, who is now a director of the Sports Council, here, "We have to do the same, here if we want to bridge the gap." The same problem faced cricket, he told the annual dinner of the Midlands Club Cricket Conference in Solihull.

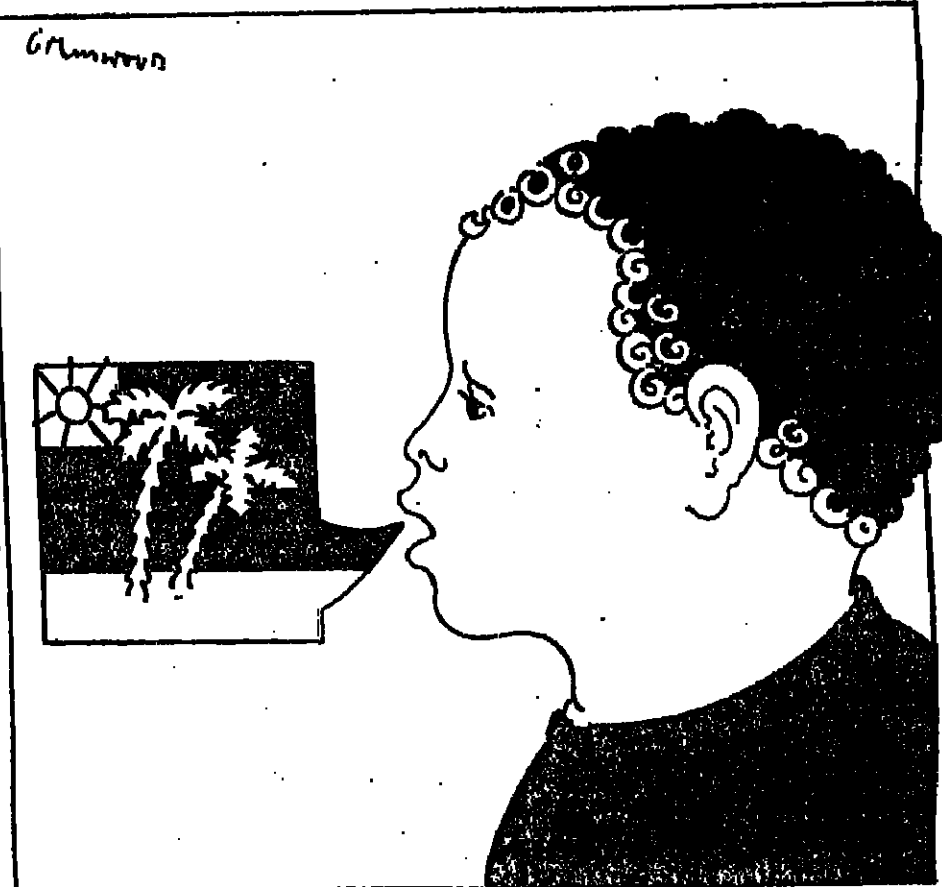
for young cricketers in their area. About 75 clubs are expected to take part in the competition which will be on a league-knock-out basis involving eight different groups. It will be open to club members who were under 16 last September.

It is being sponsored by the Alpine Soft Drinks Company of Chelmsley Wood, Birmingham, and secretary of the MCC, said: "We were becoming worried about the future of the game at youth level because less and less cricket is being played in schools."

The Worcestershire Ramblers Cricket Club has announced that it will donate a four-figure sum to the scheme. Mr John Garnham, the club chairman, said last week: "Youth cricket is where our future Test stars will come from. It is an area where we are pledged to help."

When Creole can be King

Viv Edwards and Dave Sutcliffe argue that the influence of dialect on the language of West Indian children may be much stronger than has been assumed



The Community Relations Commission recently gave evidence to the Parliamentary Select Committee on Race Relations and Immigration, on the subject of the West Indian community. One of the issues which they raise is language, and they make two main claims: first that most children of West Indian origin speak English in the same way as their white peers, although in the home; second, that the language problems of West Indian children are concerned with general language development and are not specifically related to dialect.

These claims are surprising, since the small amount of research undertaken in this area would suggest quite different conclusions. A study of the language of black children in Bedfordshire has thrown interesting light on the question of continuing use of Creole and creolized English. When about 30 British-born black children and adolescents were taped singly and in group conversation, only one subject exhibited grammar and phonology identical to local white usage. The others had an English dialect which showed degrees of underlying Creole influence.

There was a lingering tendency to delete the verb "to be" before adjectives and verbs, and there were some striking examples of "camouflaged" Creole. For instance: "Them boys, when they came in, they stepped on my bag, and all my sandwiches broke up." Though apparently fully inflected British English, this is translatable word for word into Creole, showing Creole placement of clauses and Creole treatment of the passive.

Subsequently a questionnaire on dialect choice was administered. This revealed that 94 per cent of British-born black children in the sample claimed to speak some Creole, and 79 per cent thought they sometimes spoke a broad form equivalent to: a Creole sentence given as an example. Surprisingly, they also indicated that they used little Creole at home (though their parents used Creole a good deal in conversation with them); on the other hand, they emphasised a high, but not exclusive use of Creole in their peer group speech. They indicated, too, that conflict (and possibly joking) would cause them to switch to Creole. Many teachers must have experience of this.

These findings were corroborated by informal comment about language use, and by actual recordings. A tape made of a conversation at home showed a British-born girl speaking English to adults while receiving Creole and near-Creole from them. On another occasion, she and her friends were left alone, picknicking at a mini-van, and apparently unaware that the tape recorder was on. The group spoke mainly in their English dialect until something started them laughing—and triggered a dramatic switch to Creole.

Many more hours of recorded peer group conversation indicated that such young people could shift with ease towards Creole for relaxed conversation, and indeed could produce a very broad form, far removed from standard English, for certain special uses. At the same time distinctly black verbal styles were developed, such as "taunting", "rhyming" (verbal duelling) bantering style, "cussing", and a heightened narrative style, intended to draw attention to the speaker's panache and ability with words, and known as "rapping" or "styling" by black Americans.

All these styles were evidently considered prestigious, and were quite similar in form and function to the black American styles which have been the object of considerable research. Thus a picture emerged of vigorous use of "Jamaican talk" by the British-born generation who prized it and cultivated it as a part of their identity. There is little evidence to support the commission's contention that most children of West Indian origin are unlikely to speak Creole.

Similarly, there is a good deal of evidence to suggest that the language problems of West Indian children are often quite distinct from those of their white peers. The first major work on West Indian language in Britain was undertaken by Jim Wight and the Schools Council's Concept 7-9 project. This was envisaged as a language course for West Indian children, but later the emphasis was changed, and it was decided that many of the skills which could usefully be developed with West Indian children would also be beneficial to a good number of British children.

Thus language difference was not considered to be a major problem, and the only part of the Concept 7-9 materials designed exclusively for West Indian children is the dialect kit. Restrictions of time and finance imposed on Jim Wight's team, however, often meant that sample size was small, many variables were never considered, and the linguistic content of the tests which they used is open to criticism.

These weaknesses led one of us (Edwards) to consider an aspect of Jim Wight's research in much greater detail, namely that language differences might result in comprehension difficulties. It was discovered, using the Neale Analysis of Reading Ability, that West Indian secondary school children performed significantly worse than British peers matched for reading ability. It is important to point out, though, that these differences only come to light on the more difficult passages which are linguistically more remote from Creole.

Underperformance of comprehension tasks can be explained in terms of many different factors, but support for the linguistic hypothesis comes from further tests designed to assess how much Creole interferes with West Indian children's understanding of British English. There was a highly significant correlation between interference from Creole and performance on the comprehension tasks, which would seem to suggest very strongly that language is an important factor in underachievement.

Several other findings from the interference testing question common assumptions about the influence of Creole. Although West Indian children born in this country showed less interference than those born in the Caribbean on the tests as a whole, on some sections it was impossible to distinguish between the two groups. Thus, British-born children had little difficulty with better-known features such as lack of inflection in plurals and past tenses, but experienced as much difficulty as Caribbean-born children on less obvious differences, such as word order and passives.

It would seem, then, that the influence of Creole extends well beyond the first generation of West Indian children. But the nature of comprehension difficulties is extremely elusive. There is no way in which, for instance, some linguistic kit could equip the children with all the skills necessary for dealing with standard English.

A more profitable line of approach would seem to be to educate teachers in the differences involved so that they can at least distinguish real mistakes from "mistakes" attributable to Creole interference; and to emphasize the potentially devastating effect which even implicitly negative attitudes to them and their language may have on the children.

This is one area which receives no attention in the commission's evidence. They suggest that "language difficulties can, given the will, be overcome by simple measures." It would seem, however, that the strength of negative feelings towards Creole has been seriously underestimated. A wide range of West Indian and British subjects, including student teachers, showed extensive evidence of stereotyping behaviour when asked last year to listen to brief recordings of children. Highest status was assigned consistently to the middle-class child, followed by the working-class speakers, and finally the West Indian children. Of greatest interest, though, is the fact that the same child was judged more favourably speaking with a working-class accent than with a West Indian accent. The educational implications of findings such as these need hardly be spelled out.

The evidence of the commission seems to both oversimplify the problems and underestimate their extent. Any balanced assessment needs to take a far wider view. If seems possible, for instance, that we could learn something from the American educational scene, where the performance of black children in school has caused concern for many years, and where differences of language background have been considered a major contributory factor—even though black American vernacular dialect differs considerably less from the standard than does Creole.

The research of Labov, Torrey, Kochman and others has established the vital importance of coming to terms with verbal culture in the background, and has shown how allegiance to lower-class black culture correlates with school failure. Further discussion of factors such as these in a British context might well prove profitable.

Viv Edwards was until recently in the Department of Linguistics, University of Reading; Dave Sutcliffe is head of the remedial department, Queensbury School, Dunstable, Bedfordshire.

Beleaguered by Bains and bureaucrats

Are your local bureaucrats too busy peopling the town halls with admin men to provide the services local government is there for?

Do your education officers spend so much time on management problems and paper work that they have little left over to think about the curriculum or the Great Debate?

Are the teacher unions threatening work-to-rule because the personnel department is interfering in the pupil teacher ratios and the finance committee is making the decisions about in-service training, or vice versa? And do you know just how many hours and memos are wasted while empire-building departments fight for the right to control grass-cutting in dual-use playing fields or caretakers' conditions of service?

Do the politicians believe that they are losing the power struggle because the seat of decision-making has switched from the smoke-filled rooms of the ruling group to the Chief Executive's pet corporate planning unit?

If the answer to all these questions is yes, a fashionable diagnosis would be that you are suffering from a severe case of corporate management, with a side effect often characterized as the rape of education.

Such complaints, however serious or frivolous they may sound, represent the feeling in many a beleaguered education department since local government reorganization brought corporate systems in its wake, inspired by the Bains report on the management and structure of the new local authorities.

It is of course true that corporate management is working perfectly well in some places, and that a strong chief officer and committee chairman may effectively defend education if it is not. It is also true that many of the ills it is blamed for—from slashing budget cuts to personality clashes and galloping inefficiency—would continue to happen without corporate management.

But the fears are not without foundation and are far from irrelevant to the

national debate about what is happening in our schools. If those bitter moments are valid, and every one of them has demonstrable substance somewhere, they have a direct bearing on the money available for the services, and on the relationships between schools and colleges and their local authority, which in turn affect efficiency and teacher morale.

All the rumblings which Bains set off erupted last October when Avon's CEO, Derrick Williams, resigned with the public statement that his county's version of corporate management meant that control of education was fragmented between so many committees and departments that he had no effective direction of it. He was backed by the local teacher unions and the Society of Education Officers advised his members not to apply for his job until the duties were more clearly defined.

Deadlock was recently broken by a little gentle mediation by the Secretary of State, Shirley Williams, and this month Avon is finally going ahead with delayed selection, having reassured everyone that

they were going to review their own, and communications at about the same time.

By now, however, the row was bringing out their own corporate stories at every conference. Officers shared their doubts, but it is a measure of their seriousness that senior CEOs have been prepared to speak freely in public.

Now the Institute of Local Government Studies at Birmingham University (the management) has decided that it is worth the heat of the seminar in May and chief executives will each field a weighty team. It is hoped that each will see the other's point of view, rather than play for a win.

Seminars and Shirley Williams' smooth things over for a while; will not by themselves change anything wrong with corporate management. Since the Avon explosion, it has

ambureaucrats

The Bains Report was meant to produce order out of chaos in local government. But Avon's corporate management row last autumn suggested it may have done more harm than good. Patricia Rowan, in the first of a two-part series, reports on its impact elsewhere

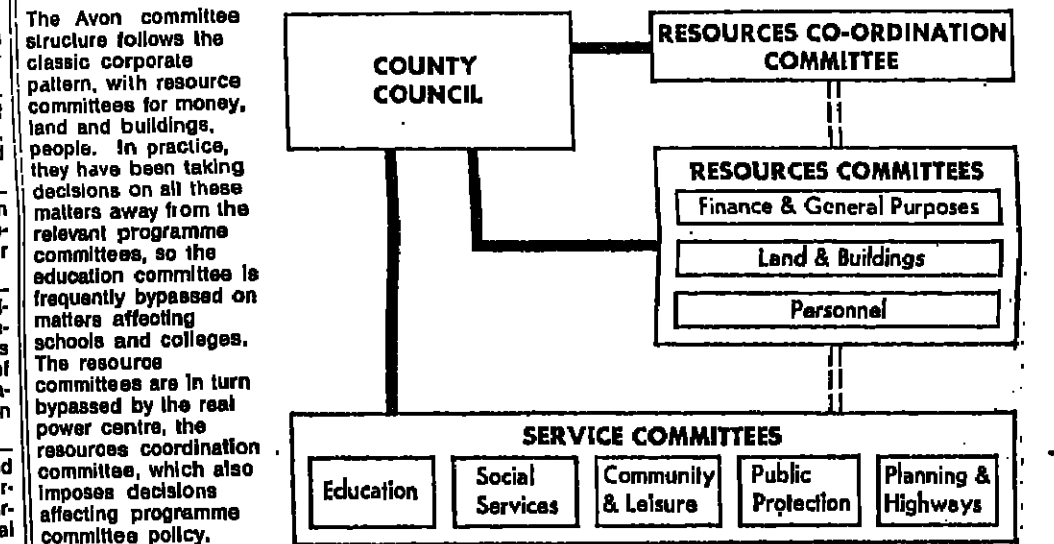
Basic corporate management kit as recommended by Bains

Chief Executive: should lead the team of chief officers, act as principal adviser to the Council, but have no department of his own. Should have outstanding managerial ability.

Policy and Resources committee: to advise on objectives and priorities across the board, co-ordinate and control implementation, monitor and review performance.

Management Team: the counterpart at principal chief officer level of the policy and resources committee. Their corporate identity as a team should be formally recognized; chief officers do not attend primarily as representatives of their own department, though they can speak for them.

Programme area committees: should be linked to local objectives, rather than particular services, to meet overlapping needs and encourage a corporate approach. The traditional department-committee link should be broken altogether.



A case for change

The time looked ripe for a revolution in local government management when reorganization was being thought about in the '60s. Many authorities had brought themselves up to date but some had just grown haphazardly out of their nineteenth-century roots without much rethinking. Departments were virtually autonomous, committees proliferated with a ragbag of policies, and there was little machinery to provide a coherent local authority view.

The Bains' view that there needed to be more comprehensive planning of policies and services and stronger leadership from the centre was foreshadowed by outside consultants, by Mallaby, and by the 1968 Redcliffe-Maud Report on local government. Maud suggested that there was a need for a horizontal management and committee system to coordinate services and decide priorities, to balance the fragmentation inherent in the vertical departmental system.

The case for corporate planning which crystallized in Bains was essentially based on that premise—though it took it further—and it is difficult to disagree with. Each authority should be run as a single enterprise with coordinated thinking on policy objectives (which are mainly money, manpower and land). There should be objectives about local needs as well as performance of services, and monitoring of such a policy is sounded right in theory. Such a policy is more essential as money gets tighter; one of the successes of the system can be to offer members a series of options. Nearly everyone believes in corporate planning now; what a lot of them have turned against is the management structure that goes with it.

It should be possible, they say, for departments to cooperate without imposing more management. But organic growth goes beyond cooperation which, in any case, depends on personalities, and at the very least a reformed structure provides a safety net to ensure that consultants take place, and makes departments aware of each other's problems. The trouble starts when it becomes a good deal more than that.

Educationalists had their doubts about the new theories from the beginning. They were bound to. Education accounts for more than half the resources, in money and manpower, of every local authority. Any move to reduce the autonomy of the departments in favour of an overall strategy was likely to nibble away at the powers of the biggest departmental empire of them all, and the evidence was that there were plenty of people in local government rather looking forward to doing that.

Teachers as well as education officers were alarmed when the Bains' working group brought out its interim report suggesting "that the service would be in

no way adversely affected if the statutory requirement to appoint an education committee were removed". It was the statute rather than the committee that Bains wanted to get rid of. He also wanted to lose statutory requirements in other departments, as interfering with the efficient management of local government. Central government, however, was not sympathetic, and the offending sentence disappeared in the final report.

But fears were not allayed, and influential members of the Bains Committee went on believing that the 1944 Education Act was an anachronism. One of them was Gordon Moore, chief executive designate of Bradford and corporate manager. He deliberately set the cat among the pigeons with a speech at the North of England Conference in January 1974 in which he asserted, in his usual cheerful bellow, that teachers were basically just the same as disunion, since both were performing a service to the community.

It was not an auspicious opening for education to the corporate age, but within four months it was a reality, swept in along with reorganization. The Institute of Local Government Studies (INLOGOV) has been monitoring progress in the authorities since then, and to all of them in a questionnaire sent out last autumn in 1974 showed that most had adopted at least the form of systems recommended by Bains—they had introduced chief executives and management teams, pared down committee structures and introduced a policy and resources committee and programme area teams.

A minority had employed consultants, most had run up their own versions of the Bains report. Corporate management was accepted as the fashionable orthodoxy, and that is a very dangerous position for any important new management tool. As with computers in the '60s, many people believed that all their problems would be solved if only they acquired the expensive new machinery; it was only later they discovered that not enough people knew how to operate it.

That did not become evident at once, because local government was having to cope with a positive momentum of change. As J. M. Stewart, director of INLOGOV, points out, there were three things in three years to cope with: reorganization, change for the worse in the financial situation, and an unprecedented situation.

The financial crisis, Stewart believes, made imperative the need for a certain strength at the centre in an authority, taking overall responsibility. "Corporate management was idealism in 1973, it is a hard necessity now."

In Cambridgeshire, for instance, which is reckoned to have one of the better managed systems, they believed that they could save £500,000 on transport if they organized it corporately, and similarly on catering, which had to come and corporate planning was most likely to produce it.

INLOGOV's second report, "In Pursuit of Corporate Rationality", published last autumn, found that CEOs were more disenchanted than most chief officers with corporate management, and J. M. Stewart has some sympathy with them. They were justified in complaining about bad handling, and insensitivity to the peculiar nature of education, "but I would disagree if they implied that an authority is not entitled to look at views across the board, or were against more efficient ways of administering some functions".

Disenchantment and disruption

Teaching troubles and financial crises, taken into account, after nearly three years even CEOs who are too tough to be put down by it themselves have more fundamental criticisms than disenchantment at the way the system is working in the worst affected places.

The balance between administration and services has become upended so that the process is more important than the product. Maud's theory that a horizontal structure was needed to balance and coordinate the vertical has been carried too far.

The line of management through the education department to schools and colleges has been disrupted. If personnel, finance, land and buildings take decisions which affect education (or indeed social services) that are not coordinated through that department, control is fragmented—the opposite of what corporate management is supposed to achieve. That was corporate in 1974 (relying on a management consultant rather than the Bains report) the chairman of the education committee, Norman Reece, was talking about getting away from the old system of watertight boxes where no one knew what anyone else was doing. Last October he admitted, in a triumph of jargon-think: "our committees are still in a water-tight box situation."

There are two factors which can work against both education and good management in this kind of set-up.

Things are going wrong if direct communication between the education department and schools and colleges are broken by the interposition of another department, such as personnel.

They are even more seriously wrong if integral parts of the education service are split, and treated by other departments. It can make a complete nonsense of education, losing the whole point of a service, since much of the youth careers advice has to take place in them. In Stockport, for example, the youth service was lost to recreation and culture, though education goes on paying for dual-

use premises. In Avon, not only did youth service have to report to the community and leisure committee, but the handout of education to join it.

In Avon again, according to Derrick Williams, the land and buildings committee decided which tenders for schools to accept, which meant that they controlled the numbers of schools built. In Bradford, education puts in its list of minor works, but central services decide the order of priorities, which are not always well informed enough to be right.

There are a number of authorities where policy and resources or finance has sought to dictate the nature of education or social services. No responsible chief officer denies the need for an efficient staff, but resources should not total figure and leave the details to be worked out by those who know in the departments. After all, Bains said, decisions should be taken at the lowest possible level.

For some education officers it has seemed that the administrators have acquired power without responsibility, while their service has responsibility without power. There is a duplication of effort rather than clear lines of responsibility.

An unclear line of management is now accepted as one of the basic defects in the health service (as it would be in any organization or industry). It is worth noting that consultants from McKinsey and Company, the firm which helped design the reorganized health service in 1974, recently condemned the new structure as evidence of "proliferation of paper and massive bureaucratic problems", and for being "inefficient, undemocratic and over-managed". They advocated scrapping two existing tiers of administration.

This is relevant to the local government debate for two reasons. First, McKinsey helped Liverpool set up one of the early corporate management structures in 1969. It caused friction when the Conservatives tried to implement it, Labour put it into reverse when they took power in 1971, and the Liberals followed up by dismantling the programme planning department. But it was the forerunner of many other such systems.

Second, the criticisms which the McKinsey consultants now make of what is largely their own health service structure are remarkably like those of the critics who say that corporate management is now discredited in industry, wastes time, money, paper and people, and produces expensive and counterproductive layers of management.

Much of this applies to local government as a whole. There are particular arguments about education (as there are for social services). It is a national service, locally administered, and both Taylor report and the national debate are likely to recommend that it should be made more open and responsive to parents and governors.

But the tendency to interventionist

management in local government is frequently in conflict both with the education department's statutory response to national policy and with small-scale democracy, forcing it almost at right-angles against the will of the community.

Education officers and chairmen are prepared to have bricks thrown at them by parents and teachers for policies for which they are responsible, but not to be accountable for decisions made by finance and personnel.

It is futile for the Education Secretary to recommend that part of the rate support grant should be earmarked for innovation training, if local policy committees can decide otherwise. In any case, education is different from other departments because, quite simply, it is dealing with children. Teachers and dustmen may both be serving the community, but it will matter little in the end how often the dustbins are emptied, the grass cut, or the pavements repaired. "With children," as Len Cooper, last year's NAS president, pointed out, "it's now or never". Budget meetings are too often playing money monopoly, thinking about figures instead of what is happening about children or teachers.

Imbalance, disruption in line management, conflict with national policy, may be inherent in corporate management. Inefficiency is more likely to be a result of the way it is run.

When the Conservatives took power in Birmingham last May and promptly destroyed their two-year-old corporate management system, the report from Neville Bosworth, leader of the council, listed these disadvantages, among others: "No evidence has been obtained of increased efficiency or economy; on the contrary, extra staff was employed to carry out fewer functions; too many officers at various levels spent too much time talking with each other at regular formal meetings; we and chief officers had too many reports, which were too long and often said little of value; there was excessive centralization and as a result, pride in achievement and initiative was stifled; advice was often ignored."

These sentiments are echoed in many other authorities, but all they are really saying is that the system is not working very well. Plenty is going wrong, but is it really all because of Bains?

Other education officers have repeated Derrick Williams' cry that he believed in Bains but of the way it was being interpreted in his own authority.

An analysis of what is happening in the authorities suggests that most of them, and certainly those that have run into trouble, have only the haziest idea of what corporate management is and have wildly, often expensively, misinterpreted Bains.

Perhaps the clearest demonstration of this is that in Kent where Malcolm Bains himself was Clerk of the Council until the 1974 reorganization, there are few problems and education has no complaints. "He took no part in planning our new

structure, but we were only too well aware of what he thought", says W. H. Petty, county education officer. "However, the report has been used or misused, he never took a line against education in Kent. He is blamed for all sorts of things that were never suggested."

Gordon Moore, of Bains and Bradford, agrees. Though the corporate system he constructed for his city went further than Bains and generated its share of rows, tensions and over-management, it has an internal logic, based on stated objectives.

The city was a product of the industrial revolution. So they should do something about the environment, see that the people were properly educated and given social help. Therefore departments for development services, educational services, social services and coordinating management, with built-in machinery for consultation. All of which is a good deal more than most other authorities have managed.

"They just copied the diagrams from Bains without reading the text," says Gordon Moore. "I always said it was a mistake to print diagrams. It was meant to produce guidelines, not a blueprint." This is supported by the research at INLOGOV, where they followed up their questionnaire to authorities by selecting a sample of 27 for further study and report. They found only a handful systematically attempting to introduce structures and make corporate management work.

Political power

Though on the surface the Bains Report was pretty even-handed on the respective roles of officers and elected members, some of the working group had no great regard for the calibre of amateur local politicians. For their part, many of them felt it had significantly underestimated the political member role.

A few of the more powerful elected members have since used corporate management as a lever to greater control, but experience and confused many others. Indeed, it is the lack of understanding of the basic thinking by members that has booted up many a structure since they voted them in in 1973. Even in Bradford, where member participation is carefully built in to the (officer-dominated) structure, an evaluation recently found that "a substantial number of members clearly do not understand corporate planning concepts".

On the other hand, whatever the views of officials about the management system, it is the politicians who have to put their hands up if it is to be changed or abandoned. It may be one of the few powers reserved back-benchers have left in the pared-down committee structure.

It was switches in political power in Liverpool and Leeds that led to chopping and changing in their corporate structures. Tameside was reputed to have a happy corporate team but the coordinating advice of the directors of education, administration and the chief executive was powerless against the politicians determined to retain the grammar schools. The entire system was dismantled in Birmingham as a direct result of the Conservative's gaining control at last May's local elections. If anyone undermines the entrenched Bradford structure it could only be the disgruntled politicians.

Reorganization had brought with it many changes in the elected membership of local authorities. The younger element were eager for new methods but had little experience of local machinery. The old hands knew only too well how things were done in the good old days, but found it hard to square across-the-board thinking with traditional committees.

The disastrous result has been that in some places the old and new systems exist side by side, or messily superimposed. Thus, programme area committees have been set up, but have died of disuse because members have seen them as competition rather than coordination for the services, and continued to channel decisions through the service committees.

Chief officers have been formed into management teams, but these have failed to become effective instruments for helping to frame policy because their deliberations were reduced to trivia. Members could not see the purpose of the management team and continued to refer major issues to the policy and resources committee.

Both these things happened in Birmingham. "Lip-service was paid to corporate management and we had the machinery for it," said Kenneth Brooksbank, CEO, "but members and chief officers were not ready to make efficient use of it or understand what we wanted to do with it."

The chief executive probably knew, but the system and the political leadership were on two divergent paths. There were the chief executive, policy and resources committees, programme area groups, and on the other side there was the committee structure. The two were never fused.

There were other reasons for the system working badly in Birmingham, but reform of the machinery could only come through a political initiative. One political mistake built into the system was that the education committee chairman did not sit on the policy committee. In the event, this did not prove as disastrous for education as it might have done elsewhere, since both Kenneth Brooksbank and his committee chairman until the May elections, Sheila Wright, were forceful and vastly experienced.

It has been simply demonstrated that it is this sort of partnership that can best prevent the powers of education department and committees being eroded by the new systems.

especially vital in those authorities such as Manchester and Sheffield where old and new systems coexist to the extent that decisions are still made by the political caucus rather than the management team.

Since the ruling group meeting is a forum for in-fighting not accessible to officers, committee chairmen are there without support and must not be sent naked into the smoke-filled room.

"We must arm our chairman with every valid piece of information," said Michael Harrison, CEO for Sheffield, "he can't just fight by force of personality." You must have political strength in education. There are too many well-meaning, benign people on committees who are afraid of going in and laying about them with their fists. Educationists will have to go in aggressively and make education important in political terms.

Since his chairman, Peter Horton, is also chairman of the Association of Metropolitan Authorities education committee, he does carry some political clout. Even so, he shares a common view that corporate management can take away democratic control and concentrate it in the hands of two or three.

Corporate management can become an old-style dictatorship in the hands of the chairman and leader. With the help of one or two others he can put things through whatever committees he chooses, however much education and social services officers and back-bench politicians may oppose.

The power of the education committee can also be reduced if the secretary of chief executive decide which committee reports go through to policy committee, interposing it as overlord, as happens in Oxfordshire.

Oddly enough, devotion to corporate systems does not run on strictly party lines. It has been embraced with equal fervour in Tory shires, in Labour and Conservative metropolitan districts. But it has been noticeable that many of the seats have come from the small metropolitan districts in the north.

One reason for this is that they do not have councillors high-powered enough to step in and sort things out when the heads of the new central control departments start trying to make their mark by empire-building.

Another explanation is that the politicians themselves are sometimes using the system to boost personal power. "There's nothing wrong here that couldn't be solved by a good bus crash," they said in another embattled education office in the north.

"Whether the education committee regains its former significance in such places may depend in the first instance on what breed of politicians is returned at the May elections. The only political constant seems to be a dangerous tendency to ditch the management system of whatever party went before. "When local government officers lose jobs on the spin of a political coin," said one displaced corporate planner at Birmingham, "we are on the edge of the abyss."

Was Peters nearly right

Harry Judge reviews the work of one of our most important philosophers of education

Fifteen years ago Richard Peters accepted the chair in the philosophy of education at the University of London Institute of Education. Things have never been the same since.

He was already, of course, a philosopher of high distinction who had in 1956 published an important book on Hobbes (whose ruthless logic continues to fascinate him) and who held a readership at Clarkbeck jointly in philosophy and psychology. He had little stomach for educational theory as it was then taught (if that is not too strong a verb) and less for what passed within the trade he was now joining, as the philosophy of education.

He did not even try to admire the heroic folly of tutors in colleges and (for their offence often was not as gross) university departments of education who wove into their general tutorial or seminar presentations threads of psychology, history, sociology (just a little) and home-spun philosophy. This was the "undifferentiated mush" a proper contempt for which became one of the hallmarks of the new orthodoxy of the sixties. Specialists in the philosophy of education were specialists in nothing, rebuffed from admission to any decent club for proper philosophers, who offered courses in the great thinkers and their influence on big ideas, from the geometrical clarity of Plato to the infectious confusions of Dewey.

The year 1962, seemed pre-ordained for launching the attack on the ignorant if virginal amateurs, and Richard Peters was promptly qualified to serve as field marshal. He was a giant among the pygmies, which explains at once the undoubted brilliance of his success and some of the disturbing paradoxes of his victory.

In 1962 the old two-year course in the training colleges had just been extended to three years, and new opportunities presented themselves for liberalizing the curriculum. Many words with which Richard Peters has such useful sport) the first and utilitarian programme which small and isolated colleges had been dutifully offering to the unexcited student.

The Robbins report was about to recommend that training colleges should now shake off their banaisic raiment and rise to a new dignity as colleges of education. It was always a nobler thing than training, and not infrequently better paid as an activity. The colleges would join the great community of higher places within the generous embrace of universities, the guardians of western civilization and the zealous guarantors of liberty.

The BEU was hurrying towards Bloomshire to be born, and represented the potent ideal towards which the revived colleges should struggle. It was, indeed, full of promise. The three-year course would now, first for some and then for all, be enlarged in time and scope into a four-year programme. At the end of it glittered not just a degree (albeit in education); newly enriched bachelors cannot be over-fastidious as choosers), but an honours degree and one awarded by a university.

Here was opportunity indeed, but it was to be enriched still further. For this was also the decade of expansion as the colleges doubled their capacity to allow for the extra year of training, to improve the staff-student ratio, to prepare for the long awaited raising of the school-leaving age. All this meant a rapid and unprecedented increase in appointments in colleges of education, and just at the moment when the nature of their work was being fundamentally re-assessed.

Richard Peters (shortly to be joined by the ebullient Paul Hirst, who now presides with distinction



over education in Cambridge), yavning gap both with powerful original ideas and, as the party and woman who he had inspired to teach them. All he had to do was to write down the rime of his thoughts in philosophy of education to possibly on lavender-coloured paper and carpers were assured.

I shall want to argue later, and I hope not ungraciously, that this kind of triumph raises its own ineluctable problems, but for the moment, and the rich wine of discourse shared and firsthand almost won a separate Williamamary had in the affection of generations of schoolchildren.

When, hewed by service in comprehensive schools and in the mafia of the James Committee, I joined—too late for the party, but never mind—the ranks of the teacher-trainers, there could be no doubt of the totality of the victory. One of my first students—and all teachers remember with a particular clarity their first pupils in any course—was a man of original views and often confused. He lived in a caravan with his books in the same container.

He came in one dark afternoon, fresh from the purchase of a dozen, long steak, to announce in the light that there is blood on my Hirstian peters". The point (if one may generously be allowed) is that the blood was that of the enemy, and not of the authors.

General Peters has wisely and cogently chosen this moment, in 1977, to publish his own informal war memoirs, in effect for the 10 years from 1964. He has done so by republishing in a book 10 of the key articles or papers contributed by himself, in these years, with a short and peevish introduction.

severely practical issues of resolution. What he was among the first to see the unmissable force of intellectual position, that of philosophy of education ought to be concerned with the problems of the and policy and the training ought to be new relationship with the financiers in schools. He remains: How to do it?

This is, therefore, the right moment to ask not only what was all about, but—even more tenacious in direction there will certainly be. The teacher training world of the sixties now, when its bold aspirations and massive achievements are recalled, sounds so remote as that of the Emergency Training Scheme, or McNair, or Kay-Shuttleworth's Butterses, or the college to which Hardy sent his Arabella.

The most dramatic and obvious (but not necessarily the most important) change has been in numbers. Colleges with the paint scarcely dried on their latest extensions, are closed. The very concept of a college of education grows perilously thin in the memory. The CNA, no more than a toothless baby in the days of "undifferentiated mush", has imposed rigorous standards which merciless universities blush even to mention.

In-service work is given, both by Mrs Williams and Mrs Thatcher, the whole shape of the teacher training enterprise. The ATOs, which in effect buttressed the welcome power of the universities, have perished without a successor. Newer voices are heard crying, from Nottingham fessional edge, for a sharper prole to the teacher-training for graduates.

Within the ill-defined and mysterious colleges of higher education are heard yielding to a consecutive longer of study and it can no most of those studying "education" can go on to become teachers. This, perhaps, will prove to be the deepest change of all.

Professor Peters's latest volume falls into two unequal parts, the first six chapters being devoted to the general questions about the nature of the study of the ever

elusive "education", and the last four chapters in the doubly difficult question of what such a study (once defined) might contribute to the education of the next generation.

So great has been the influence of Professor Peters since 1962 that it can hardly be surprising if these chapters provide no surprises. But they will serve to recall the major challenges and changes of those years. They are, in the very best sense, dated.

A rereading of those important papers can produce some odd side-effects, and this is particularly true of the last four chapters. Indeed, a specific preparation for teaching copyright note on page 166 gives "1976" as the year, although the volume makes it clear that this must be a misprint for "1967".

The point of this apparently pedantic correction is that chapter eight simply could not have been written in 1976; too much has changed in these nine years. The deaf ears to arms would fall on "don" would establish itself in this way have turned bitter.

This is not to suggest that at the standards in Hull at the ATCBE/DES conference in 1964. On the contrary, he has had no illusions about the deep contradictions of the concurrent course, none about the ways in which, and less and misunderstood him, and personal shares which await those who are rash enough to enter the world of teacher training.

His 1972 analysis of this last set of problems—in terms of the Freudian "super-ego" and "id"—is far the best brief discussion of a

view that the BBC is under some sort of Government direction, acting on instructions or directives. The truth, as it emerges from her account of consultations with politicians, is more complicated. What she describes is a continuing dialogue at various levels, conducted with varying degrees of intensity, between the political parties and the BBC.

Much of this dialogue is carried on at a department level, in case after case Mrs Wyndham Goldie as a department head was putting out feelers and taking soundings on which she then reported to the Director General's office. These operations might be carried out when waiting for a programme to go on the air or after transmission in the entertainment suite. Opinion might be canvassed on social occasions. On a more formal level there was that most important of channels, the Chief Assistant to the Director General, whom she (rightly) reveals to be the main formal liaison between the politicians and the top levels of the BBC hierarchy.

The system is flexible, well tried and efficient. There is no need for direct confrontation. On the one side, there is the tendency for politicians to become impatient with these delicate mechanisms and to wish for more direct controls. Churchill wanted to commandeer the BBC during the General Strike; Eden, according to Harman Grisewood, who was Chief Assistant to the Director General during the Suez crisis, had an instrument drawn up which would take over the BBC altogether. On the other side, there are discontents among the professionals in broadcasting who, from time to time, find the constraints under which they work irksome.

They may, for instance, press a politician too hard or expose her or her to "unfair" criticism. Mrs Wyndham Goldie cites the case of Robert MacKenzie quizzing Wilson about his challenge to Gaitskell over

the leadership of the Labour Party. Wilson's reaction was sharp and threatening. She does not, surprisingly, mention the even more striking case of James Morrison, who was injudicious enough to put it to Wilson that there was a moral dimension to the decision to support the United States over Vietnam. It was an error for which Morrison paid the price; he was removed from *Panorama* to an arts programme.

In her introduction Mrs Wyndham Goldie confesses that it was only gradually that she became aware of the "extraordinary truth" that the whole television world "is a bubble of fragility which can easily be pricked and destroyed by the decision of politicians." It is surprising, given her close involvement in television and politics, that the truth should have taken so long to sink in. Perhaps like many other BBC officials she was a victim of the BBC's ideology, which presents it as an independent agent in society. That it cannot be independent in any absolute sense is clear from the reserve powers in the BBC's licence whereby the Minister responsible may "in writing require the Corporation to refrain from sending any broadcast matter."

There is, too, as she points out, parliamentary control through the decision whether or not to increase the BBC's license revenue; in times of financial difficulty—like the present—this makes the BBC more vulnerable, which inevitably means "some diminution in its hard-won independence from government interference in its day-to-day running." Then there are the straightforward threats as when the BBC, struggling to free itself from the rule that forbade discussion of any issues for a fortnight before they were debated in either House, was warned by the Party Whips that it was advisable to get into a position of public debate with the leaders of all parties in the House of Commons.

Politics and television, Mrs Wyndham Goldie reflects, are inextricably mixed. Each influences the other in basic ways which, as yet, have never been fully explored nor understood. Her hope is in some respects that they never will be. This is a sad conclusion. It is perhaps sad that such an exploration might make it manifest that the relations between the BBC and the contours of political power rest on complicity—that complicity which, in the midst of the General Strike, she confessed to his diary: "They would be able to say that they did not commandeer us, but they know they can trust us not to be really impartial."

Between the idea and the reality... Edward Neill on T. S. Eliot. Eliot/Language. By Michael Edwards. Aquila Publishing Co. £1.50 and 50p.

There have been more labourers in the Eliotic vineyard than there are grapes. They were rarely worthy of their hire, and most of them have not, have trod, have trod until the moonlight the pipe was squeaking. These did little good to each other... Michael Edwards's book, by contrast, might be said to be monumentally short. It may even be, in its way, a kind of mild rant. "Work ethic" must be deferred to, but it may be mislabeled with ease in "academic-critical" contexts. People chundering at typewriters may be harmful druggies. Beavers may be copyists. Edwards writes in a plithy if pretentious way. The book might be described as a deliberate condensation, 48 pages long. "Pebble after pebble is quietly dropped into the pool of consciousness. The ripples can't stop. They're there. Some examples: we begin with a

short colloquy, which is really Edwards's shadowy imitation of Hugh Kenner's imitation of Eliot imitating Dryden's imitation (which wasn't that imitating) of a Platonic dialogue. It's about those Prufrockian women who come and go talking of Michelangelo. He moves to the claim, about Eliot's poetry moves from derision of types of literature to derision of literature itself. This is in turn involved with the assertion that the world as the language of "Prufrock" are "fallen".

This is taken to hold for Eliot's subsequent work, that we are confronted with "language struggling in evil" and thus, as it were, tempted by nonsense, like the non-tempted by Nimrod in the Tower of Babel in Dante's Inferno, Canto 31 ("Rafel mai ampeh zabi aim"). (And now a word from Our Sponsor?) Thus the waste is multiplied. "Gerontion" is treated as a subverted dramatic monologue, a full verbiage "giddy with conjecture".

23 Books

A fragile bubble

Stuart Hood on television and politics

Facing the Nation: Television and Politics 1936-76. By Grace Wyndham Goldie. Bodley Head £7.50. 370 01303 2.



A government-licensed organization like the BBC has a duty, not fully described by the prescription in the Charter, to inform, instruct and entertain. That duty is to provide its audience with a picture of our society's workings, and to do so in a manner that will not clash too violently with the audience's experience of life, and secondly, to explain these workings in terms of the political philosophy of parliamentarism and democracy. Any analysis of society and its workings which is couched in terms unacceptable to the Westminster consensus is implicitly forbidden. Thus it would be unthinkable for the Chancellor of the Exchequer to be interviewed on politics by an economist who was well-informed and intellectually distinguished but a Marxist. An organization like the BBC may mirror society but the image is a cosmetic one.

It may pose questions to the consensus politicians but not cast doubt on their political philosophies. In short, it must not undermine the authority of those who exercise power in our society. That this should be so is inevitable: to expect that it should be otherwise is to be politically naive. The interesting questions are: How do these constraints affect editorial policy? How do the men and women who make the policy and programming decisions know and recognize the limits of their freedom? How are the necessary relationships between the politicians and the broadcasters maintained? How, finally, do these constraints square with the idea of the BBC as a free and independent institution?

It is the great virtue of Grace Wyndham Goldie's study of television and politics between 1936 and 1976 that it provides answers to such questions. She is particularly well qualified to supply these answers since, for some 20 years, she was deeply involved in policy-making in the current affairs department of BBC Television. One of her tasks was to think clearly and practically about the relations of the BBC to Government and Opposition and to formulate programme policies in the light of her political judgments. It was a task calling for intelligence and tact, and she has yet to be manufactured.

As Professor Peters, in his recent remarks, "... in my opinion, state of ignorance with regard to teaching and learning is comparable with regard to medicine or surgery" (p. 175).

But Professor Peters is still in the field, and despite the years he has not, has not lost his touch. He might as well be a politician. Sparkling papers, that, in his new book, on government in education, or the nature of liberal education, contained, at least that we do have a chance of this, obviously, is not a new idea. This, obviously, is not a new idea. This, obviously, is not a new idea.

There have been more labourers in the Eliotic vineyard than there are grapes. They were rarely worthy of their hire, and most of them have not, have trod, have trod until the moonlight the pipe was squeaking. These did little good to each other... Michael Edwards's book, by contrast, might be said to be monumentally short. It may even be, in its way, a kind of mild rant. "Work ethic" must be deferred to, but it may be mislabeled with ease in "academic-critical" contexts. People chundering at typewriters may be harmful druggies. Beavers may be copyists. Edwards writes in a plithy if pretentious way. The book might be described as a deliberate condensation, 48 pages long. "Pebble after pebble is quietly dropped into the pool of consciousness. The ripples can't stop. They're there. Some examples: we begin with a

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Reaping what we sow

James Keddie on economics and the environment

Environment and the Industrial Society. Edited by Nicholas Holmes...

The Victorians were fond of asking Questions. There was the Eastern Question; closer to home, the Irish Question...

Both of these books attempt to address some of these problems. Environment and the Industrial Society is concerned with the effects of productive industrial activity on the way we live...

The ecological discussions are crisp. The contributors conclude that gradual build-up of pollutants globally gives the most cause for concern...

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hutors despair of him yielding it up until an exceedingly and unnecessarily unpleasant situation forces him to. Their proposals are confessed "panaceas and palliatives".

Not does Economics in the Future carry us much further. Some distinguished economists purport to address "the economic challenges of our future". In fact, they spend much of their time puffing their particular brands of economic analysis. Doubtless all of them strive for relevance, but not much is achieved.

Jan Tinbergen calls for further quantitative analysis of income distribution and international trade prospects in the developing countries and numbers of economists increasing approvingly notes "the growing importance of environmental issues, in recent decades, have found their way into business and government positions".

In-service

Teaching in Focus. An ABC of the Curriculum. Activity Methods in the 7 Years. By T. O. Greig and Brown. 11.15.

School-based In-service. By David Warwick. 85p. Oliver and Boyd.

The claim for these books is well as offering technical, such as placed in the wider of educational theory and of and classroom organization "eral", a difficult technical honour.

Activity Methods in the 7 Years comes nearest to the claim. Its 88 pages are directly to teachers and colleagues based on valuable experience. There are checklists and purpose running through all methods, and there is some about assessment and the part of keeping tabs on what the child is learning.

Children's literature

Realm of pseudo-reality

Roy Blatchford

Rose Red. By Marion Haywood. Heinemann £2.10. 434 95814 X. Nothing To Declare. By Dorothy Clewes. Heinemann £2.10. 434 95813 1. After The Raft Race. By Jean MacGibbon. Heinemann £1.10. 434 95816 G. Nine Days Wonder. By Frederick Grice. Oxford University Press £2.95. 19 271394 9. Collison Course. By Nigel Hinton. Oxford University Press £2.95. 19 271387 6.

If Jacques in As You Like It speaks for the Elizabethans, adolescence then received short shrift: from whining schoolboy to sighing lover with an adult between. Yet how many of Shakespeare's young players display the tiffs and jealousies, the insubstantial thoughts and wavering hearts, the flights of fancy and hot tempers that are characteristic of adolescents in contemporary fiction.

School-based In-service. ought to be stimulating, but Much of the book does not prompt fresh thought about the promotion of in-service work in where it ought to be.

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Nonetheless it will need a hard-earned reader to stay the course; a reluctant adolescent needs stark and immediate images, spurts of action, and much more than this pseudo-reality mistakenly churned out as eminently suitable.

Children's literature

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Two books from OUP are cast in a different mould for a similar audience. "Keir was a clumsy, impulsive harum-scarum lad. He never seemed to know where the extremities of his body were..."

"All people moved through their lives thinking that they knew where they were going but they couldn't see what events were heading in their direction to alter their course or bring it to a sudden end".

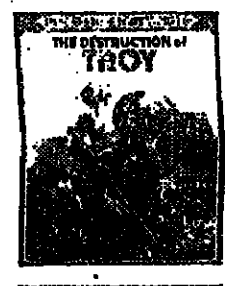
Each book: 275 x 215 mm, 48 pp, full colour throughout, laminated case, £1.95 net

Nonetheless it will need a hard-earned reader to stay the course; a reluctant adolescent needs stark and immediate images, spurts of action, and much more than this pseudo-reality mistakenly churned out as eminently suitable.

In Search of Lost Worlds



Great Adventures of the Vikings John Guipol 0 263 06289 9



The Destruction of Troy Robert Wilson 0 263 06290 2



Mysteries of the Pharaohs Robin May 0 263 06291 0



Lost City of the Incas David Roberts 0 263 06292 9

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One country, two faces

World within Walls. By Donald Keene. Socker and Warburg £11.75. 436 23266 9.

All newspaper readers are aware of the Japanese "economic miracle" wrought by "economic animals" who inhabit a country whose culture has "two faces".

Then, the half-an-hour-over-breakfast reader might have been forgiven for thinking over the rare article on a recent visit to the Asian island-country which (partly as a result of its low profile in foreign affairs) had hardly impinged on the consciousness of the Western world since the end of the war.

The second observation made at Oxford was more puzzled, even critical. Nearly all the speakers were economists. Most of them were not economists. Most of them were not economists.

One aspect was often explained by other. The economic success of Japan could not have been achieved by a skillful combination of modern technology and traditional social attitudes. Gone are the days when the Japanese, perhaps working in a high-technology industry, was expected to give an opinion on Japanese economic performance.

There must be more interesting things to write about Japan. It is time to start writing about Japan. It is time to start writing about Japan.

Brian Poni

The dialogue is bouncy and has a zealous conviction, the narrative turns fluidly and readily interpretable. Her heart tends to Danny, with cloying best friend April at odds with her frankish acquaintances at the group's advice centre.

The second book, The J2 Reader, aims to "bring together in an introductory and accessible form information essential to understanding Japan now scattered over a myriad of books and papers".

At a recent teacher workshop held at St Antony's College, Oxford, may indicate the next stage in the enlightening of the British public. The first was an appreciative response to the emphasis given to culture rather than economics.

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Times and places

Michael Hurst

The Enlightenment, by Norman Hampson (Penguin 90p. 14 02 1004 0). As in his A Social History of the French Revolution so here Professor Hampson has tackled a diverse, indeed perverse and infuriatingly intractable subject with a markedly workmanlike and consistently context-fixing, determination.

Much of the research on Japan currently being undertaken in this country will further this attempt to understand Japan now scattered over a myriad of books and papers.

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There must be more interesting things to write about Japan. It is time to start writing about Japan. It is time to start writing about Japan.

As proud as...

Penguin have recently published a clutch of books under the Peacock imprint. The publishers have chosen a wide range of titles, well as non-fiction that they hope will appeal to 14 to 16-year-olds.

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Poems in plenty

Poor Roy. By Roy Fuller. Andre Bousquet. 1975. 233 96802 4. Time's Delights. Chosen by Raymond Wilson. Illustrated by Nicholas Bentley. Beaver Books Gp. 600 37128 X.

In Poor Roy, his second volume of poems for children, Roy Fuller casts a wry glance back to his first volume published in 1972.

I wrote a book for girls and boys— Seen Grandpa Lately? I doubt if any child enjoys It greatly.

Fuller's sense of self-deprecation in action. But I must record that his earlier book, in fact, was very well thumbed in my classroom, even if a number of the poems were too dense for young children. Poor Roy removes this obstruction, and adds extra clarity and wit.

As always in Roy Fuller's work there is ample intelligence and a keen observation to be sampled. The poems, brief and pointed as they are, invariably hit a bull's eye or target. They are possibly spinning off from his main writing output, and he can be mechanical at times.

This can be glimpsed in such poems as "Household Riddles" and "Meetings and Absences" where an idea has been worried into a number of variations.

Roy Fuller enjoys adding a touch of mystery to a common object; thus, in "In the Bathroom", a "blood-stained tile/hatry" turns out to be an elastoplast. This technique encourages the child to pursue the poem down the page, and offers him a smile at the end.

He also displays a liking for the eerie: "Up and down the staircase go Characters from E. A. Poe. Now there's a compiler from an accomplished and immensely readable book of poems that I'll find

myself repeating around school in the coming weeks. Time's Delights is the straight-forward title for a no-nonsense anthology from the new Beaver paperback imprint. Divided into seven sections (e.g. "Whatever the weather", "All in a day"), the compiler has given himself elbow-room to include poems from a wide range of subject areas.

Let's not much struck with contemporary poetry, and those living poets included are of what age variety—R. S. Thomas, George Barker, Norman Nicholson. There's plenty of support from Milton, Shakespeare, Blake, and all those boys.

King Rutherford's postmillist illustrations add wonderfully to a well-presented anthology. The poems are given ample space to breathe, and on reaching the end of the book I felt a definite sense of satisfaction arising from the compiler's careful choice of poems, and the high level of presentation and production.

Form Photograph. By Stanley Cook. (75p 905291 05 1.) Staff Photograph. (75p 905291 06 9.) Alphabet. (90p 905291 07 7.) All by Stanley Cook. Available post free from Harry Chambers, 3 Cavendish Road, Heaton Mersey, Stockport, Cheshire SK4 3DN.

Far too often in school, poetry is just for the kids. A useful corrective to this imbalance is the work of Stanley Cook—himself a teacher and also an extremely deft poet. Not only are his verses sharply focused "photographs" of what we have all seen but never quite captured, but they might also serve as a useful stimulus to persuade teacher to attempt a little creative writing.

David Self

Do not worry too much about Alphabet, a series of 26 four-line verses about the letters of the alphabet ("the first gods of literature"). These so-called concrete poems are a sort of development of the haiku form, clear-headed but not quite gelled. The author tells us, "An immeasurable imaginative effort has gone into their creation." The poem about "I" is simply: "First person, a full developed/self-isolating muchschick man/All attention, but too big-headed/To amount to much in more ways than one. Enough said."

Stanley Cook is very much more telling when taking the "Form Photograph" (which first appeared in another edition five years ago). It is what the title says—a series of 30 snapshots, 30 typical third form schoolboys, an elder brother who captures the first eleven and the school, "the form's best actor, who reads the part of Shylock with a Jewish accent," "the form's dumb blond," "the boy who is average, the boy who is lazy (and his epitaph), the boy who failed in biology and the 'potential trouble maker', they are all present, all neatly framed."

If Form Photograph is presented with love and sympathy, Staff Photograph is mellowed only by pity. "What's wrong with your teaching that makes you need to put in overtime?" and many others lack heart for their teaching. It is a chilling picture—chilling because it is all too easy to fit faces we know to these archetypal bodies, sitting around the staffroom.

But these are good verses, thoughtful verses, Form Photograph will make an ideal present for your friends on the staff; they might feel like buying a copy for themselves, or for the staffroom. The book is available from the Administration (General) columns at the end of this paper.

David Self



The monsters in Deborah Niland's "ABC of Monsters" (Hodder and Stoughton £1.95) are found pursuing 26 alliterative activities—fighting frogs, sipping soup and teasing tigers among them. This is a witty book to be enjoyed by adults as well as toddlers.

Short story selection

The Pegasus Library 5 to 7 Doris Lessing. Ambrose Bierce and Edgar Allan Poe. Jack London and Henry Lawson. (Each £1.50 each.)

Doris Lessing and the interesting pairings of Jack London with Henry Lawson and Edgar Allan Poe with Ambrose Bierce, are the three latest additions in the Pegasus Library series of collections of short stories which has already presented Conrad, H. E. Bates, Katharine Mansfield and Ray Bradbury.

The stories come freshly, not for the most part, having been used in the anthologies which commonly circulate. Each writer is well enough represented to convey his or her particular qualities and range of themes, and the series engage much-needed opportunity to engage more deeply with an individual writer than is offered by odd stories in mixed collections, or even a full-length novel.

Doris Lessing is a superb choice. From the subtleties of her sense of relationships and tensions in families, between classes and colours, she is likely to be expected readers to a complexity that they are only on the edge of discovering, and perhaps a greater wholeness of vision than they have met with in any other contemporary writer, yet finally returning to the simplicities: the Non-Marrying Man, who goes to live in a village in a life that suited him, and a woman with whom he lived in kindness," and the ordinary woman in England versus England who, ignoring his words which seem mocking and which she does not understand, goes to Charlie

with the comfort which she instinctively knows he needs.

Jack London and Henry Lawson are suitably linked for the similarity of their lives and themes. London's power to describe landscape and atmosphere and to create monumental characters such as a lumber in The League of the Old Men and Margaret Henan in Sam and I, and like Doris Lessing, to establish the evils of society with greater precision than politicians, is set alongside Lawson, the lesser of the two whose stories however sketch a similar tough and lonely environment which also throws up remarkable human beings and human behaviour.

The Poe and Bierce volume is particularly interesting in showing how consciously intricate can make two writers, having an unusual resemblance in life and character, extraordinarily similar; and in establishing the connexion between the kind of writing that is great and the kind of life that is great. The Poe and Bierce volume is particularly interesting in showing how consciously intricate can make two writers, having an unusual resemblance in life and character, extraordinarily similar; and in establishing the connexion between the kind of writing that is great and the kind of life that is great.

Each book has sets of questions on the stories which can be used to stimulate thought, discussion of written work and an introduction on the writer's lives and the literary influences involved which is simple enough to be understood by fourth years and informative enough for the first-year sixth form.

Some schools may feel that in between set books there is no opportunity to introduce these selections. If all were read and discussed, an enhanced understanding of literature's power to convey experience, some knowledge of literary links and influences, and some appreciation of the comparative quality of writers would be achieved; but every little dip into them is worthwhile. Rachel Drake

Lesley Wood

Disappointing. Despite the title Down to the Bone the writing lacks poignancy, less on account of subject matter than of treatment. Enoch's Two Letters", a potentially unsettling story about a small child abandoned when both parents decide independently to leave home on the same day, is predictable without being convincing. "Chicken" extends to the point of the absurd the old folk tale about the decapitated hen that refuses to die.

The edgy first love relationship between a girl of 15 and a boy two years older is depicted more successfully, but most of the stories suffer from over-simplification of both character and language. More than adequately represented is that virtuous, outlandish language which has so become a hall-mark of Sillitoe's style as to have inspired an

excellent recent parody by Malcolm Bradbury. Mervyn Peake's Boy in Darkness is a single fantasy that some of the first compulsive reading. A boy of 14 longs to break free from a circumscribed life of ritual, ritual and adventure. Impelled by hunger and acid-yellow anger, he enters a frightening land where he is tortured by two grotesque creatures, Gook and Gyeen. He is offered to the master before whom they cringe, the blind and diabolical Lamb. With desperate resourcefulness his boy body and soul by unceasing the Lamb. It is a tale with distancing religious overtones, some grim humour, and a highly charged atmosphere.

The series, for all its bits and pieces, is sufficiently promising for further developments to be awaited with interest.

Learning to learn

ALUN BUTLER reviews the Schools Council Careers Education and Guidance Project

Schools Council Careers Education and Guidance Project. Published by Longman. Work: Part 1—the Foundation Course (designed for 3rd year use) Framework is the pupils' material consisting of eight editions of a newspaper, each sold in packs of ten copies and costing about £1.00 per pack. Longman Group Ltd, Longman House, Burnt Mill, Harlow, Essex, CM20 2JE. 2 Framework Teaching Guide, price approx. £3.50. 3 Box of spirit masters, price approx. £10.00. Available from May, 1977.

There appear to be two approaches to careers education in secondary schools at the moment. The first is making a specific decision about a job or career, to which more and more space is being given over on the timetable, either as an appendage to or as an integral part of the curriculum.

The second approach sees careers education from a broader, philosophical standpoint which seeks to influence the whole curriculum and includes all the learning which is produced in different ways by the school inside or outside. It aims to help each individual consider his own vocation and sense of purpose.

In the present employment situation, to assume that careers guidance is only concerned with helping people find a satisfying and suitable job is naive. It has also to help people make decisions about their future, to help them to find the kind of satisfaction they want from the leisure, domestic and vocational aspects of their lives.

Not surprisingly, the purpose of education and the role of careers education within the secondary school curriculum is receiving increasing attention in the great debate in view of the dearth of materials which support this broader approach to careers education, the publication of the Schools Council careers education and guidance project third year materials is particularly welcome.

The project was set up in 1971 to develop classroom materials which will help children obtain a realistic forecast of the sort of experiences and problems they will

face in working life. The foundation course for third year pupils is based on a newspaper called Framework which will be published shortly. Fourth and fifth year materials are currently being revised and sixth year materials are undergoing trial. The project will close in August, 1977.

The foundation course is designed to encourage children to understand themselves. It helps them to assess their strengths, weaknesses, interests, skills and values. It brings the world of work into the classroom and underlines the links between work in school and life after school, and helps children understand more about their relationships with others. Throughout the course, opportunities are provided for children to practice making decisions.

Each issue of the newspaper deals with two lesson units from the foundation course. All parts of the front page story to classified advertisements can be used as a start for a lesson unit. Not everyone will want to use each exercise: the advantage of the newspaper format is its adaptability and flexibility, children from different backgrounds will find enough stimulating material. Imaginative teachers will adapt it to local needs.

The methods described in the teachers' notes are based on open-ended inquiries by the pupils themselves. The course centres, appropriately, on involvement rather than instruction and makes extensive use of simulation, role-play and group discussions.

Joe's Place from Framework is an exercise which encourages pupils to think of any mysterious neighbours they may have. They speculate together on the jobs and lives each could have. The object is to make them aware of the jobs people do and the daily routine and life-styles associated with them.

Framework Five examines some of the problems of a typical community, how these are related to the world of work and the various ways in which individual and collective action can bring about change. It also looks at the calls made on someone's time and how he might work out priorities that fulfil his personal and social needs.

"Man on a Ledge" in Framework Four is an exercise in communication. It shows the link between careers education and the Schools Council programme in linguistics and English teaching (published under the title Language in Use). It explores relationships with others and the consequences of decisions, sharing the approach to the Lifeline materials in the Moral Education Project.

The Thiston by-pass exercise is designed to get pupils thinking about the social effects of such a development, and is similar in approach to the geography and the young school-leaver project Man, Land and Leisure.

Framework is more than a series of lessons or an interesting newspaper for 13/14-year-olds. Its approach to individuals and their role in society is dynamic involving everyone who can help children with their careers education.

It may be idealistic to expect every subject teacher to relate his specialization to his vocational implications. The integration of related subjects is however both desirable and feasible, and depends primarily on the coordinating skills of the careers teacher. Language in Use, Lifeline, Geography and the Young School-leaver project are all designed to make a useful starting point and help schools to achieve integration rather than aggregation.

Teachers who used Framework in its trial stages experienced problems over the style of the material and the expectations of parents and pupils. Not concerned with disseminating occupational information, but, disappointingly, "nothing to do with jobs". This is inevitable if a decision about a career is thought of as getting a good job with prospects rather than the progression into and through the world of work.

In contemporary society change is a constant factor. Careers education should be concerned with helping students to be flexible and also to appreciate the contribution they can make themselves to influence society. The message of economic, social and technical change for the curriculum is that task-training is not relevant when and if skills rapidly become obsolete. Learning to learn is more relevant than the acquisition of facts or skills.

The approach to careers education embodied in Framework aims to help students develop a meaningful relationship between the self and society, and to relate this to their own actions.

Copyright Clearance: a practical guide by Geoffrey Crabb. Council of Educational Technology, distributed by Councils and Education Press Ltd, 10 Queen Anne Street, London W1M 9ED, £2.25. Photocopying and the Law. British Copyright Council, distributed by Industrial Artists, 12 Carlton House Terrace, London SW1 3QP.

Copyright law has been subject to a great deal of misunderstanding and teachers could make genuine mistakes. With the publication of Copyright Clearance, that excuse disappears. It is a concise, clear handbook made up of notes written around an algorithm which offers straight answers to most of the questions that must occur to any thoughtful person wishing to make use of another's work.

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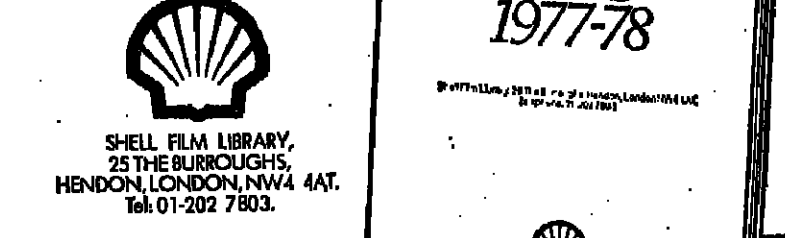
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THE TIMES INDEX The Times Index (which includes entries for The Times Educational Supplement as well as The Times, The Sunday Times, The Times Literary Supplement and The Times Higher Education Supplement) is now published monthly, with a cumulative annual volume at the end of the year. For full details write or telephone: Customer Service Manager, Newspaper Archive Development Limited, 16 Westcott Road, Reading RG3 2DF, England. Telephone: 0734 28133. A limited number of specimen copies are available.

I before E except after C... and other tales

The secret truth about The Great Spelling Problem is that it does not really exist. Most children can spell reasonably well. The problem is to write the majority while he comes with the individual problems of the few?

Encouraged by educational publishers who find it good husbandry to ignore what Bullock told us (and what we knew all along) — namely, that "Spelling needs to be taught according to a carefully worked out policy, which should be based upon the needs and purposes of the pupils' own writing, not upon lists of words without context," teachers do tend to use lists of words without context in the hope of solving The Great Spelling Problem.

Now on offer are a handful of new slender booklets, each presumably suitable for a fairly small number of users. Spellingway Three, by S. A. Stegg (Schofield and Sims 27p, 7217 0282 1), the third and last of its series, is a series of

word games and puzzles (based on an eclectic theory, transistor wiring diagrams, Morse, semaphore and "Anagrams") and is particularly suitable for highly gifted older juniors whose spelling is infallible and whom you wish to bemuse for half an hour.

A much better book, but one aimed at nearly as small a target area is Spelling Success, by R. Panter (Cassell, Book 2 60p, 29231 1; Teacher's Book 2 £1.45, 304 29232 X; Book 1 published 1974). It provides help for those students on commercial English prefixes and suffixes.

Sound Dictionary, by Joy Crawshaw (75p from Willow Publications, PO Box 55, York) is a series of lists of words, grouped according to their aid to spelling from sounds within the word.

It is a relief to turn to two books of much wider application. Lewis to Spell, by W. D. Wright (Nisbet 60p, 7202 0930 7) is based on the fact that English spelling is not tot-

ally unpredictable. It teaches the basic principles first and then men- tions exceptions and variations. A copy should be on the reference shelf of every upper junior and lower secondary classroom.

Words Around You: Where You Live, by Kenneth Agar (Cassell, 60p, 304 29518 X) is the first in a series of four books designed not so much to improve spelling, as to extend vocabulary. Well illustrated and attractively presented, it would serve as an excellent basis for language work in the middle school — and as a stimulus for project work.

Perhaps the answer is to build up a collection of about 50 different "spelling books", and when you can remember which one might be of some help to an individual pupil when he is confronted with a particular problem; but (and this is a regular news for the educational formulae which will cure all spelling problems, real or imagined.

D.S.

A good yarn

The Poison Ladies and Other Stories. By H. E. Bates. 80p. 08 02054 6.

The Hoes Have Stopped Working and Other Stories. By Bill Naughton. 80p. 20547 X.

Down to the Bone. By Alan Sillitoe. 80p. 019799 X.

Boy in Darkness. By Mervyn Peake. 60p. 019798 1.

Wheaton (Literature for Life Series).

sheep stories. For an interesting story line they will tolerate and enjoy details of characterization and background description. The "Literature for Life" series seems to be aimed at these readers.

R. E. Bates leads into a fond of cowslips and harvest moons, but teenagers could find it rather irksome to be offered so frequently the perspective of very young children pondering on ancient relatives called Great Uncle Crow and Aunt Prunes, or running from imaginary witches. They would appreciate better "The Queen of Spain Frigate" in which a cocky 17-year-old relieves her boredom by allowing a man of 60 whom she finds ludicrous to pay court to her.

Several stories which rely on slight

incidents inflated by purple prose would be dismissed as dull.

The 10 stories of Bill Naughton have more immediate appeal. Both the title story and novelly characterize far from cerebral child boys lubricate themselves illegitimately with humour, percolating through petty crookedness, is at its sharpest in "Seeing a Beauty Queen Home" in which an unexpected brush-off. Naughton's stories are craftsman- like and many bounce to a cheer- ful, some young readers who find successive encounters with tragedy either distressing or tedious.

The Alan Sillitoe collection is

disappointing. Despite the title Down to the Bone the writing lacks poignancy, less on account of subject matter than of treatment. Enoch's Two Letters", a potentially unsettling story about a small child abandoned when both parents decide independently to leave home on the same day, is predictable without being convincing. "Chicken" extends to the point of the absurd the old folk tale about the decapitated hen that refuses to die.

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The series, for all its bits and pieces, is sufficiently promising for further developments to be awaited with interest.

Norwich trail

The Norfolk Association of Architects have produced an illustrated poster which outlines a town trail of Norwich. The route is two miles long and takes in a number of the city's most interesting buildings. These include the Friary, which was given to the city in 1583 at the dissolution of the monasteries; Gurney Court, the birthplace of the prison reformer Elizabeth Fry; and the Georgian Assembly House.

The poster costs 30p and is available from Communication Counsel Ltd, 63 Caermarvon Road, Norwich NR2 3HY. There is a discount for orders of over 20 copies. A quarterly broadsheet on Norfolk is also produced by the NAA.

The Bard's Royalty



Richard III Shakespearean Kings Pictorial Charts Educational Trust, 27 Kirchen Road, London W13 0UD.

Shakespearean Kings (there were not many queens about them) is a wall chart which successfully sorts a specialist's history plays and makes clear who married whom, when and sometimes why. Symbols show in which plays they all appear, and different colours indicate the various lines of descent. It is really rather like the London Underground map: "Change at Henry V for the Houses of Lancaster and Tudor."

The chart comes with accompanying notes and deserves a place in any classroom where one of the histories is being studied.

Algorithm for copy culprits

by Owen Surridge

Copyright Clearance: a practical guide by Geoffrey Crabb. Council of Educational Technology, distributed by Councils and Education Press Ltd, 10 Queen Anne Street, London W1M 9ED, £2.25. Photocopying and the Law. British Copyright Council, distributed by Industrial Artists, 12 Carlton House Terrace, London SW1 3QP.

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Stargazing into the celestial sphere

FRANCES HILL visits a school with a telescope on its roof

Astronomy has long fascinated both adults and children. With the discovery of such mind-boggling phenomena as pulsars, quasars and black holes, and the growing feeling in the scientific air that a radical breakthrough may be made before long, perhaps fitting all these concepts into one grand new theory of space, time and matter, the subject has become still more compelling.

Not surprisingly, increasing attention is being given to the subject in schools, with astronomy clubs and courses leading to O level.

But astronomy as a subject has one great practical drawback. Learning astronomy without studying the night sky through at least a pair of binoculars is like learning biology without ever dissecting, or even taking a good look at, an animal. But whereas frogs can be brought into the classroom at any convenient moment, the planets and stars are not so accessible, appearing clearly only in good weather at unseasonably short hours, through instruments which can be expensive.

At St Clement Danes, in West London—a grammar school which is combining with Hurlingham Girls' School to become a comprehensive next year—determination on the part of one of the science masters, and the parents' association has resulted in unusual facilities for practical astronomy—an 8 1/2 inch reflector telescope mounted in a school room.

The telescope is a Newtonian Reflector with electric as well as manual drive, capable of tracking stars automatically. The clock consists of several redundant clock-room routines, skilfully redeployed by a group of enthusiastic parents with the help of the school's technical studies and science departments.

The telescope's reflector may seem modest compared with the 82 inch one at the Royal Observatory at Herstmonceux, or the 200 inch at Mount Palomar, but it is more than adequate for ordinary school standards. It is powerful enough to show Jupiter's moons, the banding in Jupiter's atmosphere and Saturn's rings, very clearly. "There isn't a school with a better

telescope than we have", says Mr M. A. Cardwell, the science teacher who founded the astronomy club. The telescope was paid for by the school's parents' association, at a cost of £250. It was installed in 1973, two years after Mr Cardwell, who is himself studying for an MSc in astro-physics, started the school's first astronomy course.

The course sprang from a request by a group of fourth-formers for more advanced work in physics. Mr Cardwell asked the group whether they would be interested in doing astronomy, and 25 said they would. As a result, lessons started one evening a week after the school was closed, with binoculars and boys' telescopes.

It was quickly discovered that 25 was too many at once for observation. It proved impossible, Mr Cardwell says, to keep everyone interested all the time in a group of that size. Since 1972 the astronomy club has usually been limited to eight or nine. In June 1973, soon after the parents' association donated the telescope, pupils on the course took the astronomy O level examination for the first time.

At present ten fourth formers and a few boys from other years belong to the astronomy club and attend the weekly 90-minute lessons held at 3.30 on Tuesdays. Their level syllabus includes the study of the solar system and galaxies, the sun, the electro-magnetic spectrum, "time and the celestial sphere" and the practical study of telescopes. Such exotic phenomena as quasars and black holes are dealt with only briefly for O level purposes, but cause so much interest that "some times a discussion degenerates into a discussion of the latest astronomical discoveries reported in the papers."

Mr Cardwell's extensive collection of slides—some taken by himself, some bought from educational suppliers, a few provided by NASA, the American space agency—supplement direct observation in building up a picture of the universe. An occasional film is borrowed from Authority Film Library and visits are paid to the planetarium at Greenwich, which is more suitable than the Baker Street one for

school groups. Mr Cardwell believes, since it does not have to provide so intensively for the tourist trade.

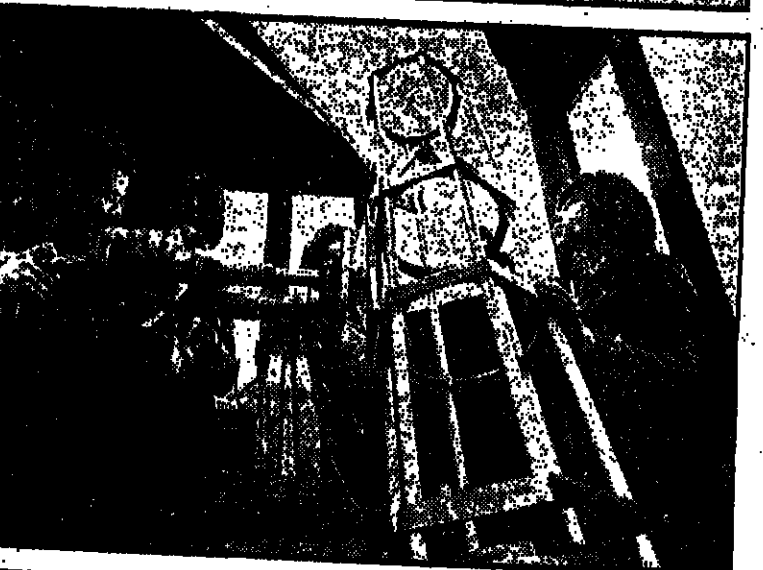
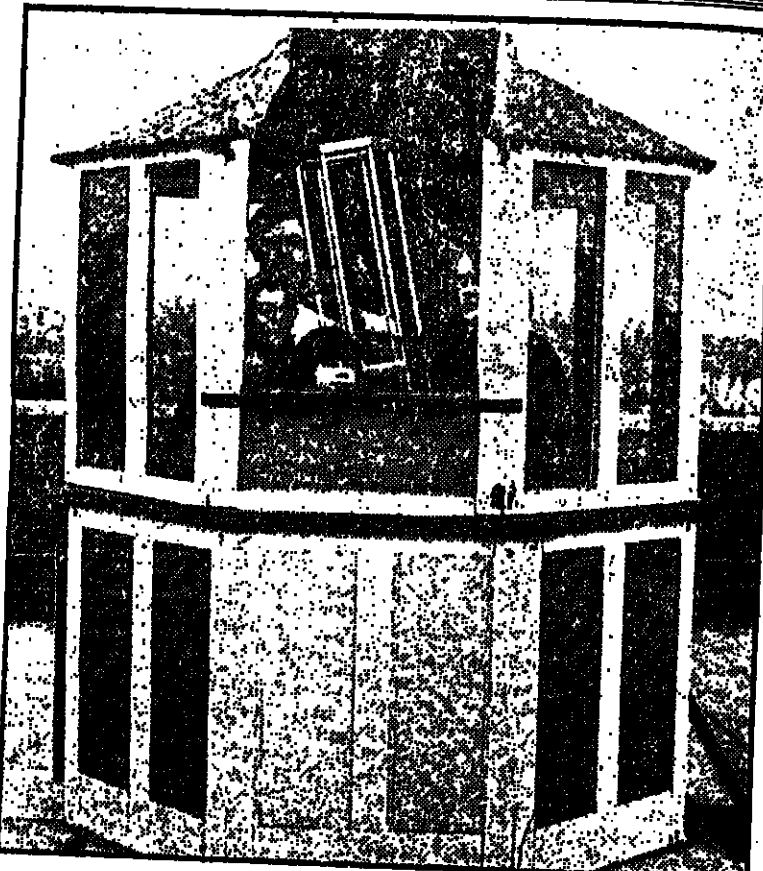
Unfortunately, the need for these facilities is greater than it might be because of limitations placed on use of the telescope. There are only 30 or 40 nights in the year when viewing conditions are good, and of these only about a dozen tend to fall on week-day nights in the term-time. Perfect viewing conditions often seem to occur on a Saturday or Sunday.

It does not help, either, that arrangements for viewing can only ever be made at short notice, because of the weather. Mr Cardwell and the boys often have other commitments when a clear night seems likely. Two of the astronomy club members belong to the Scouts, and another has weekly bell-ringing practice.

On top of these difficulties there is that of the glow in the sky because of the street lights in Du Cane Road, on which the school is located. Even on the best viewing nights it is impossible to see much more of the stars than the major constellations. The Milky Way is invisible. This is, of course, a problem throughout London. Out in the country, in clear weather, the whole sky is densely packed with stars to every horizon.

Mr Cardwell is keen to overcome some of these difficulties to make fuller and better use of the telescope. He has arranged to take courses, with the boys on the club, with the telescope, to a friend's cottage in Berkshire, to spend a whole night observing the sky. He will also get the telescope's camera on the pole star to obtain star tracks. The expedition is planned for the first fine weekend in April. If the venture is successful it may become a regular feature of the astronomy course.

For school astronomy, Mr Cardwell points out, a radio telescope is much better than a visual telescope. It can be used in the daytime. Perhaps the best example is the American space agency—supplied by the accompanying photograph. It is dangerous to look through an optical telescope in daylight, especially when the sun is out. Meanwhile, of fine, clear nights during the spring when they can make the greatest possible use of the telescope they have now.



Above: the school's six-sided revolving roof-top clock in which the Newtonian reflector telescope (below) is mounted.

TALKBACK

Threatened alternative

Peter Newell

The alternative school movement is in danger of retreating into the artificial world of academic discussion and theoretical argument. One of its longest-surviving exponents, the White Lion Street Free School in Islington, North London, will have to close this summer unless the Inner London Education Authority grants aid.

We see the relevance of places like the free school in terms of their capacity to change the mainstream education system in the direction of the needs of its consumers. That change is not going to come through isolation, but close contact and cooperation with those working in and around the system.

We have fostered that sort of contact and cooperation, which is why not only our local community, but local schools and other ILEA institutions, social and welfare workers, trainers of teachers and students (and national and even international educationalists) have signed a petition urging the authority to support us.

In the five years since we opened we have been telling the authority that our legal status as an independent school is no reflection of our attitudes, but is inescapable until they substantially grant-aid us. There are plenty of sections in the Flexible 1944 Education Act that

would allow them to do so without stifling our experimental character. Alternatively, they could fund us as a voluntary organization, as Islington Council does. We are asking for no more than the unit costs of educating the same children in maintained primary and secondary schools (and we do have many children who had indicated in one way or another (truancy, disruption, etc.) that they could not accept the education offered in local schools).

All a parent wants is for their child to be in a school since it started in 1972: "The children come here I think that should be enough if I wanted them to go anywhere else they wouldn't go—they like it here." Why is it not enough to convince the authority they should pay for it? We have heard a lot of reasons—some based on wrong information or misconceptions—that our teacher-child ratio is unrealistic, that local schools regard us as some kind of threat, that the authority has no legal powers to fund us.

We suspect the main reason has a firmer ideological base. Those who have spent their energies on removing selection and building up comprehensive schools see no place for "alternatives". This is not to

say we regret the ending of selection, or the passing of the voluntary aided grammar schools. But we see a danger in a centralized bureaucracy creating a unified school system and strictly limiting the development of new structures, when there is no consensus over the aims of education.

Surely there is a case for authorities spending more money on developments involving children and families in areas of proven social and educational difficulty which have the support of their local community, and are no more expensive in terms of money or manpower than conventional schooling? Our aims (more or less logically translated into practice) are more or less identical to the long-term aims for schools identified by the ILEA in reports such as *An education service for the whole community*.

Some "alternatives" have been so pressed for funds that their ideology and practice have never had the opportunity to develop beyond a fight for survival. We have been lucky. Almost from the start, Islington agreed to fund our under-five and community activities (about a third of our total

budget). Various trusts (chiefly Waite, Calouste Gulbenkian and City Parochial Foundations) have given us grants. The ILEA has so far limited its aid to school meals and youth activities.

This comparative security has forced us to come to terms with the realities of working as adults in a non-hierarchical and cooperative way, sharing cooking, cleaning, accounting and administration, as well as teaching.

This way of working is of increasing appeal to many in traditional schools. We only pay ourselves £20 a week, yet we had more than 60 replies to one advertisement for a new worker (before the current teacher unemployment scares)—including several from heads of departments in large comprehensive schools. "You may have just the job I am looking for, as I have reached screaming pitch with the present education system", one wrote.

Our way of working helps to encourage non-professionals to become fully involved in education—both as learners and teachers. A young parent who has had two children in the school from the start became increasingly involved

in helping, particularly with the older ones. As she had become a full-time worker we decided she should be paid as one.

Sharing other work roles enables us to work in much smaller groups with the 50 children. This is the key to building an individual curriculum genuinely based on a child's needs. Frequent outings and use of community resources also become possible in small groups. Some are surprised to find that we spend a great deal of time meeting and curriculum planning: non-compulsory learning does not imply a lack of other structures or planning. Often this can happen in response to a student's interest or local event (blackberry picking; the pickets at the Trico factory; an urban farm; a building site; the Old Bailey).

Our weekly meeting, with its open agenda and free discussion, has not confirmed anyone's fears of the results of children's full participation in more or less all areas of decision-making. Calling and organizing a meeting and making articulate contributions seem to us to be basic skills of the same level of importance as literacy and numeracy. Talking—positively discouraged by the structure of many schools—happens all the time.

We have no compulsory learning activities in the school, but that seems insignificant. The questions we have to ask ourselves are about the degree of encouragement of children which is compatible with confidence building, and with not limiting their autonomy and so their learning.

The Great Debate must be widened to ask questions about aims, and about the sort of institutional structures which foster different aims. It is in the context of that sort of debate that we believe our survival is at stake—as a working model of an alternative, cooperative structure designed to encourage autonomy within a community, and to provide basic educational and social services for more of its members.

Descriptions of White Lion Street Free School's development are available in bulletins 2, 3 and 4, available from the school at 57 White Lion Street, London N1. The school welcomes visitors more or less every Tuesday night, from 7 to 9 pm. Peter Newell is a worker at the school.



Sharing work roles in the Free School allows for a good child/adult ratio.

Sally Greenhill

Live & Learn

The Camera Talks "Live and Learn" series of Audio Visual Aids were designed by children for children. The slides are:

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ROY BLATCHFORD on adult literacy materials

Disco Pack

304 29756 9, Cassell, 35 Red Lion Square, London WC1R 4SG. Price £1.95.

The BBC's *On the Move* was launched for two million illiterate or semi-literate people. Referrals to literacy centres over the ages 16 months have highlighted a further anxious number who, though able to read, are completely unable to write because of severe spelling difficulties.

Another problem has been the total lack of suitable books and materials (among the established publishing houses) have begun to remedy with a realization of reading matter, some of it in different, much remarkably successful.

At the very early stages, teachers will rely heavily on their own made slides or on the highly-motivated adult who does not feel his self-respect undermined by sloughing through dreary *Just and Now*.

From a reading age of six to eight, Cassell's *Disco Books* can take up the story. Cassell has emerged as the more lively author in the field, and *Disco Pack* contains 32 workcards to develop basic reading, comprehension and writing skills based around her titles.

There are four cards for each of eight books published in 1972: *The Fish*, *Tommy Tip*, *The Day I Got The Stick* and *The Girl in the Whip*. *Come as one set*, and the

second included *Supermarkets, Green Day Off* and *Maped*. The subjects of the stories are ideal for young adults and the accompanying illustrations suffice.

The workcards develop along predictable lines: listing words, which appear in the text in alphabetical order; supplying the missing letter; completing tables of opposites; creating a letter; an extension of the tale; describing and labelling the drawings on similar topics.

The cards are starily laminated with long-lasting rounded edges, but there are some serious faults. The line drawings, which are an integral part of the language development, are indistinct, occasionally poorly coloured. The typographical excellence, cause confusion.

The good material is available in the handbooks efforts to provide the student with his own answer sheet. This appears underlain by the bottom of each card but, once from several printing mistakes, incomplete, they are

Development of the Foetus

35mm filmstrip £3.95, also available as a slide set £5.95 or £7.50. Cassette £3.50.

Talks Ltd, 31 North Row, Park Lane, London W1.

The first three frames of the 24 in this filmstrip show the surface of an ovary with a ripe follicle, an ovum and spermatozoa. Subsequent frames cover the development of the human foetus to full term, the penultimate one showing the head of the baby being born and the last frame the mother and her new baby.

The slides are of very high quality and as a collection show significant stages in development. The detail is good. Blood vessels and finger nails can be seen and the "blue" of the placenta is particularly useful.

It is a pity that the accompanying anonymous notes are so poor. There is confusion in the use of the terms "ovum" and "egg". In frame 2 "The ovum, or egg at 2/10mm is the largest cell in the organic structure" but in frame 7 "This shows the egg containing the embryo (which is 40,000 times larger than the egg from which it originated)". The opening for frame 6, possibly the worst, includes such phrases as "The liver just produced, red globular at this stage" and "arterial and venal network". This note concludes with: "The heart is also responsible for the interchange of blood between the embryo and placenta, through the vessels in the umbilical cord, clearly seen here, such as nose, mouth and ears, begin to take shape, and fingers start to appear."

The value of accurate, informative notes, worded in clear English, can hardly be overestimated. This is particularly true for a topic such as this which is so likely to provoke questions and discussion, and which is studied by many different types of classes with teachers who are not necessarily specialists in human embryology. The usefulness of these notes is limited to giving the size and age of the stages shown.

While younger children may find the inevitable changes of scale confusing, this could be used for a range of teaching levels. The depth of treatment of the topic being left to the discretion of the teacher and the interests of the class.

The pictures could well stimulate discussion of the various structures shown, the problems confronting the newly born baby of living outside the uterus, and the development of the various organs. The notes would be most helpful, addition to courses on human reproduction.

Statistics, Computing Operational Research

For a descriptive booklet and study guide, send this coupon to:

Operational Research Ltd, 110, London W1R 2ET. Tel: 01-493 6222.

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Back to planning

Ann Moore

At Easter my son starts school, and I am viewing the event with growing dread: not just because I am his mother, but because I have been a mother. I have inside knowledge of my own inadequacies and sins of omission, as well as those of the system in general. This knowledge is turning me cold.

In spite of the importance attributed by educationists to the individual, theory and practice are so often poles apart. While teachers may aim to create an atmosphere in which children can develop according to their own needs and abilities, in reality they are in danger of having their aims and ideals crushed by the enormous pressures exerted upon them.

After a day spent struggling to survive the continuous battle of one against 30, the evening is taken up with marking work and planning the next day's lessons—in itself a full-time job. And when you collapse in a heap in front of the television, you are plagued by the worry that you have failed to attack the ever-growing pile of educational inquiries and research projects.

So you close your eyes and pretend they are not there—only to find that not only do they not go away, but they grow and multiply like Tiddlers—until suddenly they have taken over and everybody else has leapt confidently upon the interdisciplinarily multi-media, pupil-centred, mixed ability, handwaggon while you are still trying to get hold of a tape recorder.

So you make time. You read the latest gospel, evaluate it, apply it to your own teaching, devise your own courses, produce your own material, even set your own public exam—all your own. In this freedom, you wonder wearily, or slaverily? As term progresses, you become increasingly exhausted, harassed and depressed by the sheer weight of work in spite of your noble aims, you fall to see the trees for the wood, and the much exalted individual pupil merges slowly and inexorably into one mass, to be damned henceforth as one of "that horrible lot in 3C".

It is time teachers acknowledged that this fashionable do-it-yourself trend does not necessarily work in the best interests of the pupils. Not only does it lead to increased teacher stress, but also to an inefficient use of manpower. The tendency of teachers to limit themselves out of data and unimaginative if they are not dreaming up pupil needs has resulted in an unnecessary and debilitating fragmentation in the education service, where there are "as many opinions as there are men".

Teaching practice

D. William Blades

Teaching practice can be as traumatic for teachers and children as for students. To teachers it is a mixed blessing, offering the opportunity to spend some extra time with children who need it, but also the possibility that a well organized, sensible class will be reduced to a state of chaos.

Colleges have sensibly adopted the methods of sending the students to schools on a scouting expedition into a class, to work in the room, to

vice and recommendations abound there is no obligation upon teachers to accept these.

We need positive and united leadership from those who hold positions of responsibility. We need a common sense policy, avoiding the pitfalls of a rigidly prescribed curriculum and the absence of coherent overall planning. We must not stifle teacher initiative, but let free teachers from the excesses of physical and mental stresses under which they work. We must not allow parents to dictate what goes on in schools, but free them from the anxiety that their children are being used as guinea pigs in experimental experiments of questionable value.

Only in this way shall we enable teachers to devote their energies to the vital work inside the classroom, and parents to rid themselves of the depressing conviction that all roads lead to Tyndale.

Ann Moore is a former secondary school teacher.

Modern primary schools do not offer the student much opportunity to indulge in the well-rounded lesson which our older teachers produced for our tutors. Where can the student display his mastery of pedagogic techniques? The well-aimed question, the modulation of the voice to prevent the class dropping off, the carefully planned written work the neat recapitulation of the new information?

Nowadays students must display a capacity to organize which, often lacks experienced teachers. They must be able to be mathematician, English critic, historian and naturalist by turns, as well as being enough of a disciplinarian to prevent chaos becoming riot.

To occupy 36 eager nine-year-olds in a primary class where, assignment cards are used requires a daunting amount of material, which students cannot produce in the few weeks available. In our school we try to compromise by suggesting students select a theme in English, mathematics, science and history or geography, and concentrate on producing work cards and other teaching material, using the class teachers' assignments cards as back-up material. Inevitably students find it difficult to hit the correct level in their work cards, but the weekly visits help to obviate this.

Usually students are able to display their own work cards, and this generally satisfies the tutors. I have known one student who rejected the suggestions of the class teacher that he should not rely on the teacher's assignment cards, but insist

produce some of his own. Unfortunately it was not until the teacher took his class home to "revise" that the student saw what was required.

If the class is already well organized to work in groups or as individuals, the student should find little difficulty in carrying on as before. Of course the student must accept that even six-year-olds soon see that the new teacher has not as much authority as the other teachers, but students must tackle this problem by displaying calmness and good humour.

One student we had was excellent in every way—intelligent, imaginative and thoughtful. She planned her work carefully, giving the children stimulating material to study. But when the moment for tidying up came, her calm exterior was stripped away and she dissolved into a helpless jolly. The children saw her anxiety and played upon it, displaying an amazing streak of cruelty.

Happily most students do not get into this situation. Most of them are eager to accept advice from the class teacher, both on what they teach and how to do it. I have not met a college tutor who complained about children in a primary classroom pursuing a variety of activities at the same time.

Most are only too pleased to find a school where this happens. None has ever found much difficulty in assessing students' ability in these circumstances, although occasionally you have gathered that the tutor seemed a bit "when asked for advice".

Teaching practice is an artificial form of training. But it is difficult to see what could replace it. With fluidness from the teachers' cooperation from the students and freedom from the children's damaging effects, can be mild.

D. William Blades is deputy head teacher, Royville Primary School, Leeds.

CHILDREN

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Teachers wishing to apply for a post in Scotland advised to ask the Registrar, The General Council for Scotland (5 Royal Terrace, Edinburgh) for information about eligibility for registration.	
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Derbyshire headship

Applications are invited from suitably qualified primary teachers for the Headship of this school.

Upper Heage Primary School, Nr. Ripley 205 Children GROUP 4

It is proposed that the person appointed should become Head of HEAGE PRIMARY SCHOOL (276 children Group 5) to be established on one site from the merging of Upper Heage Primary School and Nether Heage Primary School (70 children Group 2) subject to the proposed reorganisation receiving the approval of the Secretary of State.

Closing date 3rd April, 1977

Application forms and further details (SAE Footscap please) from the Director of Education, County Offices, Matlock, Derbyshire DE4 9BG

County of Cleveland

PRIMARY SCHOOL HEAD TEACHER (GROUP 5)

BRECKON HILL PRIMARY SCHOOL

Breckon Hill Road, Middlesbrough, Cleveland TS4 2DS

Applications are invited from suitably qualified and experienced teachers for the above post which will become vacant from the beginning of the Autumn Term, 1977. The school, which opened in 1971, is semi-open plan in design and has a purpose-built nursery unit which caters for 3 and 4 year olds. Financial assistance with household removal expenses is available in approved cases.

Forms of application and further details are obtainable from and returnable to the County Education Officer, Education Offices, Woodlands Road, Middlesbrough, Cleveland TS1 3BN, not later than 8th April, 1977.

BEXLEY LONDON BOROUGH

NORMANDY INFANT SCHOOL, BARNEHURST

HEAD TEACHER—GROUP 5—

ROLL 228

Applications are invited from suitably experienced teachers for the post of

HEAD TEACHER

Appointment to date from September 1, 1977.

Application forms and further details available from Chief Education Officer for Schools (T.5), Town Hall, Crayford, Kent, to whom they should be returned by Monday, 4th April.

Education Headteachers

Trent Vale Infant School, Trent Road, Beeston, Nottingham

Number on roll 205 Salary Group 4

Qualified teachers are invited to apply for appointment as Headteacher of the above school.

Vacant September 1, 1977.

Bowbridge Infant School, Bailey Road, Newark, Nottinghamshire

Number on roll 179 plus nursery Salary Group 4

Qualified teachers are invited to apply for appointment as Headteacher of the above school.

Vacant September 1, 1977

Application forms and further details may be obtained by forwarding a stamped addressed footscap envelope to the Director of Education, County Hall, West Bridgford, Nottingham NG2 7QP.

Closing date April 1, 1977.

Head Teacher

St. Dunstan's R.C. J. I. School, Drayton Road, B14 7LP

Suitably qualified candidates should obtain application forms from the School and submit direct to the Correspondent Manager c/o School. Closing date: 25 March, 1977.

There is a scheme for assistance with removal expenses.

BIRMINGHAM CITY COUNCIL

HAMPSHIRE

HIGHFIELD C. of E. (AIDED) PRIMARY SCHOOL—GROUP 5 (FIRST & MIDDLE, 5-12 years)

Applications are invited for the HEADSHIP of this school for September, 1977.

As part of Southampton's reorganisation of schools in 1970, the attractive old Church School (for 5-8), near the University, has been completely modernised and has excellent facilities for cooperative teaching. A new purpose-built Middle Department of the School (for 8-12) has been provided on a nearby site. Applicants should be committed practising Christians, preferably Communicants of the Church of England.

Further particulars and application forms may be obtained from: THE REV. JOHN F. A. WILLIAMS, PH.D., HIGHFIELD VICARAGE, 38 BROOKVALE ROAD, SOUTHAMPTON SO2 1QR.

Closing date for applications: 5th April, 1977. Assistance with removal expenses in approved cases.

Nottinghamshire County Council

North East Essex Area

King's Ford County Infants' School

Gloucester Avenue, Shrub End, Colchester (Roll 183) (Group 4) Re-advertisement

HEAD

for this Infants' School with effect from 1 September, 1977. Previous applicants need not re-apply as their applications will receive consideration.

King's Ford County Junior School

Gloucester Avenue, Shrub End, Colchester (Roll 270) (Group 5)

HEAD

for this Junior School with effect from 1 January, 1978. Closing date for these two posts 7 April, 1977. Application forms and further details may be obtained from the County Education Officer, P.O. Box 47, Market Road, Chelmsford.

Wesley & St. E. (Aided) Primary School

Main Road, Wesley, Clacton-on-Sea (Roll 150) (Group 3)

HEAD

for this Primary School with effect from 1 September, 1977. Applications must be in sympathy with the teachings of the Church of England. Closing date: 15 April, 1977. Application form (and further details) obtainable from and returnable to the Area Education Officer, Park Road, Colchester CO3 3UP.

Derbyshire headship

Applications are invited from suitably qualified primary teachers for the Headship of the following school

Mickleover Junior School, Derby 283 Children GROUP 5

Closing date 3rd April 1977

Application forms and particulars for the above post (s.a.e. footscap please) from the Director of Education, County Offices, Matlock, Derbyshire DE4 9BG.

Head Teacher

Applications are invited from suitably qualified and experienced Catholic teachers for the above post. The appointment will be effective from 1st September, 1977.

Housing accommodation may be available in suitable cases, reasonable removal expenses (lowest tender) including allowance of up to £10 per week and up to £500 towards Legal and Estate Agent fees may be payable.

Application forms and further details, from and to be returned to the Controller of Education Services, P.O. Box 22, Civic Centre, Harrow, HA1 2UW; by 29th March, 1977. (Please enclose stamped addressed envelope.)

Harrow Education

Deputy Head Teacher

St. Brigid's R.C. J.I. School

Frankley Beaches Road BS1 5AB

Applications should be submitted direct to the Correspondent Manager, c/o the school.

Closing date: 25 March, 1977. There is a scheme for assistance with removal expenses.

BIRMINGHAM CITY COUNCIL

NORFOLK COUNTY COUNCIL Education Committee

HEAD

required for DERHAM TOFTWOOD MIDDLE SCHOOL (Group 5)

RE-ADVERTISEMENT

HEAD

required for CLARKSON FIRST SCHOOL, Norwich (Group 5)

Application forms and further details ONLY by sending a stamped, addressed footscap envelope to County Education Officer, County Hall, Norwich NR1 2DL. Closing date 4th April. Removal expenses payable in accordance with the Authority's scheme.

DEPUTY HEAD

required for MAGDALEN GATES FIRST SCHOOL, Norwich (Group 4)

Application forms and further details can ONLY be obtained by sending a stamped, addressed footscap envelope to Area Education Officer, Gladstone House, St. Giles, Norwich NR2 1LQ. Closing date 4th April, 1977. Removal expenses payable in accordance with the Authority's scheme.

Nursery Education

HEADSHIPS

BERKSHIRE EDUCATION SERVICE

WILKINS NURSERY SCHOOL

Arlesey, Beds.

Group 2

Applications are invited for the post of Head of this nursery school for September, 1977. The nursery is a purpose-built building for a Nursery Unit. The school is situated in a pleasant area and has a large garden. The school is a day school and is open from 8.30 a.m. to 3.30 p.m. The school is a non-denominational school and is open to all children of the area. The school is a day school and is open from 8.30 a.m. to 3.30 p.m. The school is a non-denominational school and is open to all children of the area.

BUCKINGHAMSHIRE EDUCATION SERVICE

MILTON KEVIN R.C. COMBINED SCHOOL

Milton Keynes, Bucks.

Group 2

Applications are invited for the post of Head of this combined school for September, 1977. The school is a purpose-built building for a combined school. The school is situated in a pleasant area and has a large garden. The school is a day school and is open from 8.30 a.m. to 3.30 p.m. The school is a non-denominational school and is open to all children of the area.

NEWHAM EDUCATION SERVICE

WILKINS NURSERY SCHOOL

London, E.C.2

Group 2

Applications are invited for the post of Head of this nursery school for September, 1977. The nursery is a purpose-built building for a Nursery Unit. The school is situated in a pleasant area and has a large garden. The school is a day school and is open from 8.30 a.m. to 3.30 p.m. The school is a non-denominational school and is open to all children of the area.

REICHERTSBERG EDUCATION SERVICE

BERKSHIRE INFANT SCHOOL

Reichersberg, Bucks.

Group 2

Applications are invited for the post of Head of this infant school for September, 1977. The school is a purpose-built building for an infant school. The school is situated in a pleasant area and has a large garden. The school is a day school and is open from 8.30 a.m. to 3.30 p.m. The school is a non-denominational school and is open to all children of the area.

CHANNIS ISLES

ST. LAWRENCE INFANTRY SCHOOL

Channiss Isles, Jersey

Group 2

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Primary Education

HEADSHIPS

BERKSHIRE EDUCATION SERVICE

WILKINS PRIMARY SCHOOL

Arlesey, Beds.

Group 2

Applications are invited for the post of Head of this primary school for September, 1977. The school is a purpose-built building for a primary school. The school is situated in a pleasant area and has a large garden. The school is a day school and is open from 8.30 a.m. to 3.30 p.m. The school is a non-denominational school and is open to all children of the area.

BUCKINGHAMSHIRE EDUCATION SERVICE

MILTON KEVIN R.C. COMBINED SCHOOL

Milton Keynes, Bucks.

Group 2

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WILKINS PRIMARY SCHOOL

London, E.C.2

Group 2

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BERKSHIRE INFANT SCHOOL

Reichersberg, Bucks.

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ilea

Inner London Education Authority

For teaching posts in Inner London

See pages 64 and 65

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ilea

Inner London Education Authority

Rachel Keeling Nursery School

Morpeth Street, E.2

Headship

Vacant September, 1977; roll 72 full-time and 87 part-time. Burnham Group 2 salary, £4,311 to £4,839, plus £312 supplement, plus £402 London Allowance.

Please send a self-addressed footscap envelope for application form and further particulars to the Education Officer, EO/TS10, County Hall, London SE1 7PB. Closing date for return of completed application forms 1 April.

Essex County Council

Primary Schools HEADSHIPS

MARYLAND JUNIOR SCHOOL

Gurney Road, London, E15 1BU

Roll: 265

Required September 1977

HEADTEACHER

Group 5

Burnham Scales

Plus London Allowance £402

Plus Annual Supplement £212

Plus Societ Priority Allowance £201 or £276

Application forms and details may be obtained from the undersigned and should be returned by April 1st, 1977.

Education Offices, J. S. WILKIE, M.A., Ph.D. Broadway, Director of Education, Stratford, E15 4BH

LONDON BOROUGH OF NEWHAM

Metropolitan Borough of Rochdale
 Education Department
 Matthew Moss Middle School
Head Teacher
 Group 7

Applications are invited from suitably qualified and experienced teachers for the Headship of the above named school, currently housing 800 pupils on roll between the ages of 10 and 13.

Requests for application forms and further details (please enclose foolscap stamped application envelope) should be made to the Chief Education Officer, Education Department, Municipal Buildings, Manchester Old Road, Middleton, Manchester M24 4EA, to whom they should be returned by 4th April, 1977.

MIDDLESEX
 Deputy Headships continued

HAMPSHIRE
 HILARY MIDDLE SCHOOL, Hilary Avenue, Crowthorne, Berkshire (Group of 11-13 years)
 Deputy Headship through 7th September 1977. Applications should be made to the Headmaster, Hilary Middle School, Hilary Avenue, Crowthorne, Berkshire RG40 2JH. Closing date 1st April 1977.

MERTON
 London Borough of Merton
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Merton Middle School, Merton Park, Merton, London SW19 3NU. Closing date 1st April 1977.

NOTTINGHAMSHIRE
 Education Department
 Applications are invited from suitably qualified and experienced teachers for the post of Deputy Headship of the following schools:
 1. **NOTTINGHAMSHIRE**
 Education Department
 Applications are invited from suitably qualified and experienced teachers for the post of Deputy Headship of the following schools:
 1. **NOTTINGHAMSHIRE**
 Education Department
 Applications are invited from suitably qualified and experienced teachers for the post of Deputy Headship of the following schools:

Other Posts on Scale 2 and above

WILTSHIRE
 AVON MIDDLE SCHOOL, Devizes Road, Salisbury (Group of 11-13 years)
 Deputy Headship through 7th September 1977. Applications should be made to the Headmaster, Avon Middle School, Devizes Road, Salisbury, Wiltshire SP4 6JH. Closing date 1st April 1977.

SUFFOLK
 COUNTY COUNCIL
 STOKES-BY-NAYLAND MIDDLE SCHOOL, (500 boys and girls aged 9-13)
 Headmaster, J. H. Lindley, 11, St. Andrew's Road, Stokes-by-Nayland, Suffolk. Applications should be made to the Headmaster, 11, St. Andrew's Road, Stokes-by-Nayland, Suffolk. Closing date 1st April 1977.

Physical Education

Scale 1 Posts

NOTTINGHAMSHIRE
 EDUCATION DEPARTMENT
 Applications are invited from suitably qualified and experienced teachers for the following posts:
 1. **NOTTINGHAMSHIRE**
 Education Department
 Applications are invited from suitably qualified and experienced teachers for the following posts:

SECONDARY
 Headships continued

EALING
 London Borough of Ealing
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Ealing Middle School, Ealing, London W5 2JH. Closing date 1st April 1977.

BERKSHIRE
 ALFRED BUTTON HOVER SCHOOL, Greatwood, Reading RG1 3BH
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Alfred Button Hover School, Greatwood, Reading, Berkshire RG1 3BH. Closing date 1st April 1977.

WOLVERHAMPTON
 BROUGHAM COUNCIL
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Brougham School, Wolverhampton, West Midlands. Closing date 1st April 1977.

ESSEX
 COMPTON HILLS SCHOOL, (11-13 years)
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Compton Hills School, Chelmsford, Essex. Closing date 1st April 1977.

London Borough of Sutton
 SUTTON MANOR HIGH SCHOOL FOR BOYS (Manor Lane, Sutton)
Deputy Headteacher

Applications are invited for the post of Deputy Headmaster of Sutton Manor High School Boys to commence duties on 1 September, 1977. Vacancy due to retirement. This is an 11 to 18 selective school admitting 90 boys annually.

Further particulars and application form from Director of Education, The Grove, Carshalton, Surrey SM5 3AL. (S.A.E. please). Closing date 7 April, 1977.

Metropolitan Borough of Rochdale
 EDUCATION DEPARTMENT

PRIMARY SCHOOLS
 DEPUTY HEADSHIPS

Demesne County Juniors (7-11)
 Bowness Road, Langley, Middleton M24 4NU
 Tel. 061-843 5024
 Group 5

Applications are invited from suitably qualified and experienced teachers for the Deputy Headship of this Group 5 school, currently having 275 pupils on roll.

Hollin County Juniors (7-11)
 Waverley Road, Middleton M24 3JG
 Tel. 061-843 5148
 Group 4

Applications are invited from suitably qualified and experienced teachers for the Deputy Headship of this Group 4 school, currently having 225 pupils on roll.

Greenbank County Primary (4-10)
 Greenbank Road, Rochdale OL12 0HZ
 Tel. Rochdale 47923
 Group 6

Applications are invited from suitably qualified and experienced teachers for the Deputy Headship of this Group 6 school, currently having 420 pupils on roll.

MIDDLESEX
 Littleborough High (11-16)
 Calderbrook Road, Littleborough OL15 9JQ
 Tel. Littleborough 78888
HISTORY

Required for after Easter, Graduate teacher for History to 'O' and C.S.E. levels, Geography to C.S.E. level. Temporary appointment for one term would be considered. Applications for this post should be made to the Headmaster, Littleborough High School, Calderbrook Road, Littleborough, Middlesex. Closing date 1st April 1977.

Roch Valley High (11-18)
 Cornfield Street, Wilnrow, Rochdale OL16 3DR
 Tel. Rochdale 42485
MATHEMATICS
 Scale 1

Required for May or September. Subject taught at all levels. 22 studying Mathematics 'A' level in Lower Sixth.

Queen Elizabeth's High (14-18)
 Boardman Fold Road, Alkington, Middleton M24 1PR
 Tel. 061-843 2843
CHEMISTRY

Required for 1st May. Second in Chemistry Department, Scale 2. Graduate to teach Chemistry to C.S.E., 'O' and 'A' level. Applications should be prepared to take responsibility for technology course leading to C.S.E. for less academic pupils. Applications should be made to the Headmaster, Queen Elizabeth's High School, Boardman Fold Road, Alkington, Middleton, Manchester M24 1PR. Closing date 1st April 1977.

Other than by Subject Classification

Scale 1 Posts

WILTSHIRE
 Education Department
 Applications are invited from suitably qualified and experienced teachers for the following posts:
 1. **WILTSHIRE**
 Education Department
 Applications are invited from suitably qualified and experienced teachers for the following posts:

North West Area
 The Brampton School
 Spinks Lane, Wjtham. Tel. Witham 512911 (Roll 1,480)

Second Master/Mistress
 Salary: Deputy Head Group XI

An experienced and versatile teacher is sought for this vacancy, caused by promotion of the present holder to a Headship.

This established comprehensive school is entering upon a period of consolidation and stabilisation after rapid growth.

Further details can be obtained from the Headmaster. Closing date 1st April, 1977.

Essex County Council

Essex
 DEPUTY HEADSHIP through 1st September 1977. Applications should be made to the Headmaster, Compton Hills School, Chelmsford, Essex. Closing date 1st April 1977.

WOLVERHAMPTON
 BROUGHAM COUNCIL
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Brougham School, Wolverhampton, West Midlands. Closing date 1st April 1977.

ESSEX
 COMPTON HILLS SCHOOL, (11-13 years)
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Compton Hills School, Chelmsford, Essex. Closing date 1st April 1977.

MIDDLE SCHOOLS
 Langley High (11-14)
 Winderley Road, Langley, Middleton, M24 4LA
 Tel. 061-843 8256
FRENCH
 Scale 1

Required for Summer Term (April to July) Temporary Teacher.

HIGH SCHOOLS
 Baldersdale Community (13-18)
 Queen Victoria Street, Rochdale OL11 2NF
 Tel. Rochdale 49849

BIOLOGY
 Scale 1

Required in September. Temporary for one year. Well equipped department offering established courses to C.S.E., 'O' and 'A' level. Applications from teachers seeking first appointments welcomed.

Siddal Moor High (11-13)
 Newhouse Road, Hopwood, Heywood OL10 2NT
 Tel. Heywood 69436

1. HUMANITIES
 Scale 1

Work within Integrated Humanities Team. Specialised interest in Sociology, History or Geography. Interest in Resource Based Learning desirable. Applications from new entrants welcome. Required in September.

2. MATHEMATICS
 Scale 1

Successful candidate would have classes in years 1-5. Syllabus includes traditional and modern maths. Applications from new entrants will be welcome. Required in September.

WILTSHIRE
 Education Department
 Applications are invited from suitably qualified and experienced teachers for the following posts:
 1. **WILTSHIRE**
 Education Department
 Applications are invited from suitably qualified and experienced teachers for the following posts:

Wiltshire County Council
GLAMORGAN

Applications are invited from suitably qualified teachers for the following posts in the Authority's service. An asterisk before the school name indicates a School Priority School.

Headship
 Maesmarchog Primary, Dylryn Colwyn, Neath
 This is a Group 4 School with a mixed pupil enrolment of 116 in the age range 4-11 years. (Post Ref. 6P/1.3.77.)

Deputy Headships
 Cwmllwae Comprehensive, Pontardawe, Swansea
 This is a Group 13 School with a mixed pupil enrolment of 1920 in the age range 11-18 years. (Post Ref. 4B13/2.3.77.)

Gnoll Junior, Neath
 This is a Group 6 School with a mixed pupil enrolment of 217 pupils in the age range 7-11 years. (Post Ref. 6P13/3.3.77.)

Pengelli Primary, Grovesend, Swansea
 This is a Group 3 School with a mixed pupil enrolment of 124 in the age range 3-11 years. (Post Ref. 3P24/4.3.77.)

Secondary Schools

GERMAN
 *Mynyddbach Comprehensive (Girls) (1,500 on roll) (Age Range 11-18), Heol Ddu, Treboeth, Swansea
 To 'O' and 'A' level, some Junior ENGLISH and/or FRENCH. Scale 3. (Post Ref. 3S16/6.3.77.)

LATIN
 *Mynyddbach Comprehensive (Girls) (1,500 on roll) (Age range 11-18), Heol Ddu, Treboeth, Swansea
 Also ENGLISH to Junior forms Scale 2. (Post Ref. 3S16/6.3.77.)

Primary Schools

Traill Junior (Mixed) (285 on roll) (Age Range 7-11)
 Glan-y-Wern Road, Traill, Llansamlet, Swansea
 Scale 3. (Post Ref. 4P14/7.3.77.)

Cwmrhycydw Primary (Mixed) (540 on roll) (Age Range 4-11), Maes-y-Gwernon Road, Cwmrhycydw, Morriston
 Scale 3. (Post Ref. 4P15/6.3.77.)

Application forms and further details of specific posts are available from the undersigned on receipt of a stamped addressed foolscap envelope quoting the appropriate post reference.

Closing date: The closing date for the receipt of completed application forms is Friday, 1st April, 1977.
 John Soles, Director of Education, Education Department, Princess House, Princess Way, Swansea.

Castle Point & Rochford
 The Park School
 Rawth Lane, Rayleigh, Essex.

Opened in 1975, this school will be admitting a third year intake in September, when the following appointments will begin. It is a purpose built comprehensive school provided with many features to aid the development of a stimulating and structured curriculum. Library, resource centre and lecture theatres are central to departments provided with study area and careers. Music room, laboratories and workshops are interesting and individual.

SCALE TWO POSTS
 ASSISTANT HEADS OF LOWER SCHOOL. Two appointments, providing in conjunction with the Head of Lower School the pastoral help for children in first to third year.

HEAD OF LOWER SCHOOL HUMANITIES. Responsible for the foundation course in the first three years. Modern accommodation necessitates team approach:

SCALE ONE POSTS
 CRAFT, DESIGN, & TECHNOLOGY: Interest in use of metal and modern materials.
 MUSIC: Range of instruments is being taught already.
 SCIENCE: Biologist preferred, with experience of Integrated Science Courses.
 Candidates should apply by letter to the Headmaster as soon as possible, quoting two referees and relevant facts.

Essex County Council

DEVON
 COUNTY COUNCIL
 DEPUTY HEADSHIP through 1st September 1977. Applications should be made to the Headmaster, Compton Hills School, Chelmsford, Essex. Closing date 1st April 1977.

WOLVERHAMPTON
 BROUGHAM COUNCIL
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Brougham School, Wolverhampton, West Midlands. Closing date 1st April 1977.

ESSEX
 COMPTON HILLS SCHOOL, (11-13 years)
 Deputy Headship through 1st September 1977. Applications should be made to the Headmaster, Compton Hills School, Chelmsford, Essex. Closing date 1st April 1977.

KENT County Council
 Education Department

DARTFORD DIVISION
 Dartford Grammar School for Boys (Group 10)
 Founded 1576

Applications are invited for the post of

HEAD TEACHER

from the beginning of the Autumn Term 1977. The Authority is looking for a well-qualified and experienced candidate for this boys' selective school with a long and distinguished academic tradition. The current roll is 855 including 123 Sixth Form pupils. Forms of application and further details (S.A.E. please) may be obtained from the Divisional Education Officer, Essex Road, Dartford, to whom completed applications should be returned by 1st April, 1977.

Education Department
 Maylands School for Girls (Roll 730)
 Broadstone Road, Off Albany Road, Hornchurch, RM12 4AJ.

Required September 1977

Headteacher

for this 5 F.E., Group 6 Girls' Comprehensive School situated in modern buildings on one site. The vacancy has arisen due to the retirement of the present Headteacher.

There is a scheme for removal expenses.

H
 Havering

Application forms and further details available (S.A.E. please) from the Director of Educational Services, Mercury House, Mercury Gardens, Romford, RM1 3DR, to be returned by Monday 28th March, 1977.

County of Cleveland
 SECONDARY SCHOOL
HEAD TEACHER
 BRUNNER SCHOOL (GROUP 10) (Roll 1000), Billingham

Applications are invited from suitably qualified and experienced teachers for the post of HEAD TEACHER of this 11-16 Comprehensive school. The vacancy arises owing to the promotion of the present Head Teacher with effect from 1st September, 1977.

Financial assistance with household removal expenses is available in approved cases.

Forms of application and further details are obtainable from the County Education Officer, Education Offices, Woodlands Road, Middlesbrough, Cleveland TS1 5BN, and should be returned not later than 8th April, 1977.

150

Primary

Standards or stipulations

Teaching techniques today should require children to think, writes Ernest Chouh

Claims are made of unsatisfactory standards in primary school mathematics. An inability to master the basic skills appears to be the common complaint, but seldom is any explanation offered of how the critics determine their standards. Little thought is given to children as individuals, changes of philosophy in primary schools, psychological factors which could restrict learning, physical disabilities, sociological issues, and varying attitudes of teachers. An appreciation of what constitutes mathematics is also excluded from the comments.

The dissenters do not clarify what they mean by standards. In fact, standards are specifications by which required qualities may be checked, while equalities are degrees of excellence. If the objective of excellence in mathematics is the ability to perform stipulated procedures, satisfaction is gained, but, if qualities refer to intellectual and conceptualizing to develop in problem solving, excellence cannot be obtained.

Those interested in national prosperity often assume that the industrial labour force requires a large amount of scientific and technical "education". This is a naive wish; education is not a gathering of information, but what remains after the information taught has been forgotten. In an educational system geared solely to economic growth, people are regarded as instruments of production and taught to think of themselves as such. There is a tendency to relate instruction to

jobs, with specific levels of attainment designated as appropriate for particular jobs.

The application of an educational policy depends upon its social, cultural and material environment. A programme dictated by concern for economic growth, and a disregard for individuals, may lead to over-investment in the wrong kind of education. In mathematics, the problem is two-fold: to prepare the specialist mathematician who will apply his knowledge in either industry, commerce or management; and to gauge a depth in mathematics which will be considered appropriate for the ordinary citizen.

This last question inevitably embraces conceptions of modern mathematics. But the difference between primary school mathematics 20 years ago, and today is the refinement of content to allow children to appreciate what they are learning.

Although concept acquisition is the means of achieving this, computation processes are not rejected as a contention which is often asserted. Conceptualization enables understanding to develop an attitude and appreciation of mathematics, and then to apply the understanding to the skills of computation and measuring.

This question whether undue emphasis is being placed upon concept attainment without regard for concept development. Concepts cannot be acquired unless children are provided with relevant activities and experiences. Teachers are prone to emphasize the shortcomings of children who are unable to learn mathematics, and even to blame the subject itself, but to what extent is their own teaching and mathematics

knowledge evaluated? In some primary schools, certain textbooks and work books have become the owners of mathematics teaching. Such attitudes can be appreciated when teachers are suffering from their own insecurity in mathematics, but a duty remains to come in terms with the problems to ensure that children are receiving a mathematical education.

Whatever the implications, the responsibility for primary school children's attainment in mathematics lies with teachers. They should not resort to escapist teaching methods with meaningless, memorized routines which apart from being likely to fail, will encourage feelings of inadequacy and distrust in children, but promote situations whereby children will be stimulated to learn.

Teaching techniques of the past have shown that children can be trained to use their minds but not to think. Teaching techniques today should require children to think. Teachers should not be restricted by rituals, such as concentrating on computation on number, to exclude the remaining aspects of maths. While the ability to compute is fundamental to later development, it cannot be applied in any logical sense unless preceded by understanding through conceptualization.

Primary school teachers should be flexible in their teaching. Rigid approaches discourage opportunities for children to conceptualize. Attainments in "borrowing", "adding up", "turning upside down and multiplying", cannot be classed as degrees of excellence. Quality is achieved only when children are aware of what they are doing.

More specifically, do the critics ever ask why maths is taught to young children? How, without maths knowledge, would children return to previous well-tried and successful methods, coupled with a close monitoring of both teaching methods and curriculum to make sure that all teachers do the same.

To spend time examining these so-called truths in detail is to divert from more important issues, but must be said, however, that although that many of the claims do not stand up to close scrutiny, their popular appeal has remained undiminished.

The emotive labels "traditional" and "progressive" are perhaps the greatest hindrance to any sensible analysis of the situation. Opposing sides in this long standing argument paint gloomy pictures of each other. Traditional methods are characterized as authoritarian and placing too much emphasis on the learning of uniform standardized procedures with scant attention to individual differences that only the able child survives. Others who would have us believe that progressive methods place such emphasis on understanding and children working at their own pace that progress is minimal.

In practice, of course, the supposed polarities into two distinct types of teaching is not found. Nevertheless, the balance between mastery of particular techniques, and understanding and the learning of general strategies is an issue of fundamental importance.

We fall short of achieving either aim with many children, but the assertion, often made, that concentration on the latter has meant that we achieve neither must be challenged. Examples of attempts to promote the learning of general strategies are all too rare in our schools.

HMIs, in their paper prepared for the regional conferences, say that the desirability of achieving independent thinking and understanding of principles is not in question, but rather, the teaching gives the available teaching force. I am concerned lest anyone should think that the events of the last fifteen years should be taken as evidence that it is impossible to achieve these aims.

We have learnt that in attempts to promote change in curriculum and teaching methods the learning aims are often lost in a rush to follow the latest fashion. The metric as an end in itself rather than a means to understanding general principles is an obvious example.

Views of the context of the learning objectives of one child the teacher was attempting to teach (age 9) was attempting to teach. The teacher had it in mind that Mark

come to terms with their environment? The purpose of mathematical education is to awaken in children the significance of maths to their lives.

Mathematics has qualities essential for human beings to live a full and active life. Enumerated in co-operation with a head teacher, Ron Waggett) they are:

- Mathematics has practical uses in an individual's activities of life;
- Mathematics is a cultural subject which is led to come in terms with the world in which he lives;
- Mathematics is a part of an individual's basic language through which he is able to interpret and communicate with others;
- Involvement with, and deduction in, mathematics encourages logical and ordered thinking in an individual.

These are the spheres within which qualities, and hence standards, should be sought by teachers to provide a mathematical education for primary school children. Stipulations are dismissed immediately, and replaced by an attitude which enables children to develop as individuals by proceeding at their pace of learning, and their stage of development, to acquire mathematics at their level of ability.

Likewise, arguments about whether the primary school curriculum should be child-centred or knowledge-centred or a social ideal diminished into insignificance. A combination of excellence, and only degrees of excellence, and only when teachers appreciate this and implement it in their teaching, are primary school children in a position to secure standards.

Solving our own problems

By John Dichmont

What does numeracy mean to you? It is not a word I have used or myself found useful when thinking about or discussing mathematics with fellow teachers. However, politicians and the media have, as if werc, issued teachers with a pressing invitation to admit it to their vocabulary.

At present, it seems to mean different things to different people. So it is hardly surprising that talk about standards of numeracy can cause misunderstanding and bad feeling.

For a start, we shall have to try to spell out what we mean by the word, instead of just reacting to one another's slogans. Then, and only then, can we begin to work together to improve the quality of numeracy turns out to mean for us.

A report of a conversation may help to communicate what I mean by numeracy in the context of the primary school. It is lunchtime. I have invited Stephen to stay in and chat with me. He is six years old. I write up 17+3=□.

Ma: Stephen, look, suppose I say to you, how do you add together 17 and 3?

Stephen: Twenty.

Me: How do you know?

Stephen: Well, it's easy, 'cos 8 and 2 makes 10.

Me: But you haven't got 8 and 2 there, you've got 7 and 3. How did you... you're right, but I mean that's a strange way of doing it.

Stephen: And 6 and 4 and 5 and 5...

Me: Right. Suppose I say to you 15 add on 15. Now what's the answer to that?

Stephen: Thirty.

Me: Thirty. Well, how did you do it?

Stephen: It's easy.

Me: Well, alright, it's easy. Tell me how you did it.

Stephen: 'Cos two 5s and take away —

Me: Hang on — two fives —

Stephen: That leaves 20, add them together, it makes thirty. (10, (15+15) = (5+5) = 10+10 = 20; 5+5=10; 20+10=30.)

Me: Two fives, take away that, it leaves 20, then add the two fives together, that makes 30. Now suppose you do like this one? (I write up 17+5=□)

Stephen: 22.

Me: OK. How did you do that?

Stephen: It's easy.

Me: Alright, it's easy.

Stephen: 'Cos you add 2 more on to that (pointing to 17+3=20).

Me: Why did you add 2 more on to that 20 up there? You went back to the first one, 17 add 3 is the same as 20, and you add 2 more on to that 20. Why?

Stephen: I mean, I just tell you that, it's 'cos 1 can make it up on that 3, 'cos 2 more is 22.

Me: That's very clever. Now then, let's try this one. (I write up 27+5=□)

Stephen: 32.

Me: Yes, how did you do that one?

Stephen: It's 'cos I take 3, put 3 on to the 7.

Me: Yes, which makes 10.

Stephen: That's 30... and another 2 left, makes 32.

For me, to be numerate means to be able to operate with numbers in the way Stephen does here. He is beginning to split numbers up and to push them around with fluency and confidence.

It is clear that Stephen has developed strategies for simplifying addition problems before he solves them. Whereas most children and many adults simply tackle a calculation head on, without stopping to think how best to make an effective approach.

Stephen shows he has begun to grasp the way our number system is structured and the simple

Primary

From the teachers' point of view, a lot of public criticism and suggestions currently being made seem misguided, or even harmful

NELSON MATHS

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In many areas teachers have come together to formulate their aims... yet in many cases these low cost ventures have been undervalued. By Bob Jeffery

Local initiatives

One might expect people who have been actively involved locally or nationally in the struggle to improve the teaching of mathematics in primary and middle schools to be gratified to discover that, as a result of the great debate, the nation is at last taking an interest.

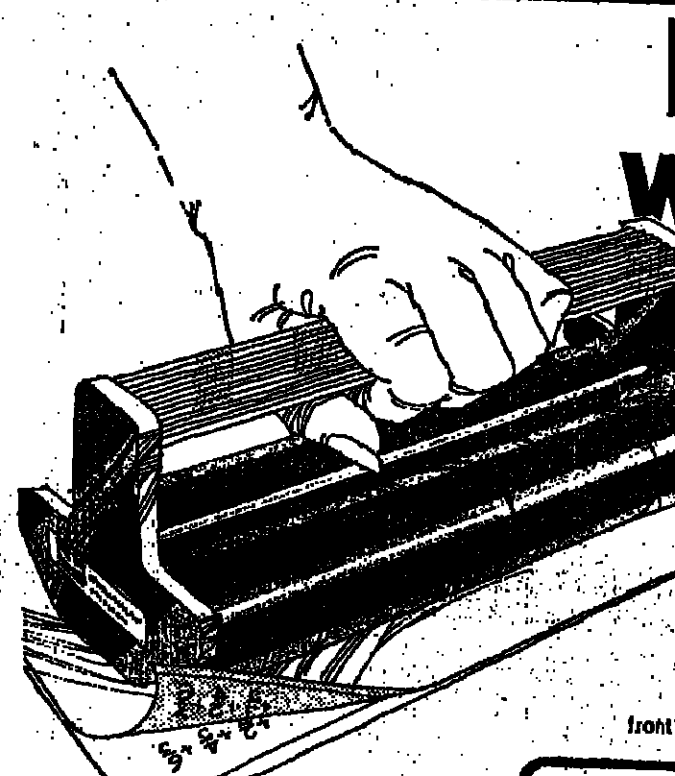
However, many skilled teachers of mathematics are less than happy about the issues that seem to be occupying the arena at the moment.

The debate has been fuelled by a steady stream of horror stories about school leavers, schools, teachers, teacher trainers, advisers and HMIs. A number of "self-evident truths" about mathematics teaching have been promoted and have attracted fair measure of support from the general public. I shall attempt to summarize some of them in case there is any doubt as to what I mean.

There was once a Golden Age of Teaching in no-nonsense methods produced acceptable standards of numeracy with the majority of children.

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I will list just four of the possible courses of action open to the teacher. Leave it at that; try to promote some organization of the roots to illustrate (10+3) x 8; introduce a different model such as an abacus or some form of structural model with built in place-value; say you do it like this — 8 3 are 24. If we accept that it is desirable for Mark to make progress in the mastery of techniques and at the same time to retain and develop his undoubted understanding of the basic idea of multiplication, we must also accept that there is no global course of action that we can suggest for nine-year-olds (or even for slow learning nine-year-olds), nor do we know enough about Mark to make the most of his potential. The teacher must make his own judgment.

Many teachers are skilled at making judgments of this kind. Where this is not the case there may be many contributory factors such as the pressure of class size, lack of knowledge of the range of possible approaches to a particular teaching problem or even over-reaction to some of the statements made in the current debate. But perhaps the most disturbing factor in some cases of failure is the lack of any clear formulation of aims.

If any real progress is to be made we must look at some of the success stories and try to get some understanding of the mechanics of change. To do this we must turn to local action. In many areas teachers have come together on a regular basis under the auspices of associations of teachers, teachers' centres, colleges or individual schools in an attempt to formulate a clearer picture of their aims and to find ways of achieving them.

The returns on these low-cost ventures have usually been most rewarding. Yet, in many cases, those who control the spending on in-service education. It is to be hoped that some of the resources previously devoted to issuing pearls of wisdom will in the future be diverted to in-service education of a less prescriptive nature.

The final sentence of the HMI's paper states: "In-service training must be directed above all to the development of the teacher's own capacity to make judgments." Let us hope they mean what they say!

Bob Jeffery is lecturer in mathematics at the West London Institute of Higher Education.

should come to some understanding of how this could be done by considering the 13 as 10+3. Mark, however, made 13 8s with Cuisenaire rods and obtained the correct answer.

Me: I will list just four of the possible courses of action open to the teacher. Leave it at that; try to promote some organization of the roots to illustrate (10+3) x 8; introduce a different model such as an abacus or some form of structural model with built in place-value; say you do it like this — 8 3 are 24. If we accept that it is desirable for Mark to make progress in the mastery of techniques and at the same time to retain and develop his undoubted understanding of the basic idea of multiplication, we must also accept that there is no global course of action that we can suggest for nine-year-olds (or even for slow learning nine-year-olds), nor do we know enough about Mark to make the most of his potential. The teacher must make his own judgment.

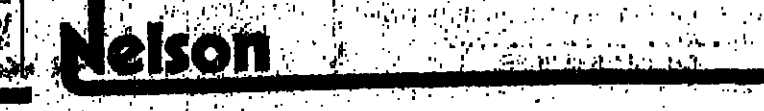
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Secondary



Teacher and pupils at Wyndham School demonstrating the importance of discussion in an investigation. See "Investigating mixed ability", page 49.

Courses for all-dream or reality?

Not enough pupils are taught mathematics for the whole of their school careers, writes Kenneth Lickley

The start of the great debate has been a very great disappointment to me as a mathematics teacher since, so far as it has related to my subject, it has scarcely progressed beyond charge and counter-charge, claim and refutation, on the subject of "standards" of numeracy.

It has been as clear to me as to many others, teachers and commentators alike, that all is not well with mathematics in schools. Equally, however, I would have thought the time right for looking forward optimistically, believing it possible now to "begin moving" in more precisely to accelerate the movement already begun in serious throughout the country, in the right direction again.

I see little point in denying that some of an earlier generation of pupils were taught, by much repetition, practice and routine manipulation, to be technically more proficient in certain skills than present pupils. Which is not to say that I accept all the nonsense talked about falling standards—modern pupils have been taught other things at least equally as valuable instead, and have been taught them well.

Indeed, it is in the honest and sincere attempts which have been made by many teachers of mathematics to improve standards that I have the most hope for the future lies. These teachers have tried to teach pupils in such a way that they might qualify for the accolade "numerate" in much the way that the well read and educated are a recognition of more technical, mechanical skill. This involves an attempt to piece necessary techniques and skills in the framework of a coherent conceptual structure but also, I believe, beyond this to allow pupils to respond effectively to the subject; to understand and to enjoy.

Why then have standards generally not improved as might have been hoped? The main reason is, I think, a simple one: not enough pupils are taught mathematics, and I mean mathematics, not just arithmetic, for the whole of their careers in school. The conventional wisdom still says essentially that mathematics is a subject for more able pupils, that setting from an early moment of pupils must be the key. And too many of those who are taught, who are not rejected by the subject, reject it instead.

Real progress will never be made until the attitude of pupils in general, towards mathematics, is radically changed. One hears stringent demands for a return to "traditional methods" and more continuous concentration on arithmetic and "useful" mathematics. If, indeed, they would at best result in marginal

improvements in a very few specific skills and at worst simply in the negation of most of the progress which has been made in recent years. Very much more can be achieved—and the attempt to do it should be made.

Few would argue that the experience of school pupils of the English language should be structured only to develop their aptitude in basic technical skills, of reading, writing, sentence structure, etc, whatever the pupil's ability. Pupils of all abilities are capable of emotional responses in and through language, the development of which has an important part to play in their development as human individuals. In almost the same way pupils should learn to appreciate the beauty of mathematics, its symmetry and pattern, and the variety of its applications and methods, its conciseness and power, its flexibility, the intellectual satisfaction it can provide outside the classroom.

It is my passionate belief that this is not just a dream, but that the work being done in many progress on these lines. There are obstacles to overcome, of course, difficult problems made by the recent criticism made by the Inspectorate of mixed ability teaching in mathematics, for example, this and used to concentrate the debate on vitally important questions.

What we need are courses for all which combine increased concentration on basic concepts and techniques with opportunities for the use of imagination and creativity in applying learned techniques in unfamiliar and exciting situations, the solving of problems and puzzles, the chance to recognize pattern and structure, and the time to analyze and digest.

One of the main obstacles in the way of further progress is the present examination structure. A course for all would seem logically to imply an examination for all. And I feel convinced that in many ways the present structure, in the very process of ostensibly maintaining "standards" has been a very effective agent for stifling advance. It does this by repeatedly putting quantity before quality, as anyone who has worked in Mode CSE or CSE schemes knows full well. The breadth of the syllabus is paramount. We are forced to try continually to teach too much to the average pupil.

A fairly drastic reduction in the sheer number of concepts and techniques included for examination in standards immediately and very noticeably in much more than their mathematical skills but including their mathematical aptitude. The lightening of the examination would also create the time needed for pupil and teacher alike to think about and enjoy their work. Mathematics is a thinking

subject, analytical and creative. Far too few pupils ever learn this, and too few have the time to use it, to see their roles as being as creative and satisfying as they could be. If they did might we not have begun the long process of breaking the cycle of disenchantment?

But what should be taught? I am not going to embark on a detailed attempt to answer this question—indeed I do not claim to know the answer in detail. What I do realize though is the pressing need for a careful examination of the complexity of conceptual skills involved in any topic considered for inclusion, and the need to relate this to the abilities of students at 16.

At Kingsthorpe, over four years now, we have tried to teach mathematics to all our pupils, making our own modest attempts to find answers to some of the problems involved and discussed here, becoming increasingly convinced, at least, that answers do exist. We have Mode 3 CSE and GCE syllabuses with assessment schemes already linked by common assessment of work completed by our pupils in the "laboratory", with the added link of a shared examination paper almost finally forged between them. We have tried to encourage thought and creativity in laboratory projects. We have taught groups with a wide spread of ability right up to the examinations. We have entered all but a handful of pupils for the examination (without complaint). We have written a complete course of workbooks and experimented with a variety of classroom styles.

But we try to teach too much, of the examination board's behest. We are not sure that we are teaching the right things in the right order at the right time. We are still experimenting with teaching methods. We are certain that what we are attempting is right, that we are on the right road. Will the great debate in any way help us towards its end?

At almost every stage we have met with obstruction rather than assistance, with cynicism rather than support, with the widespread belief that any attempt to teach our subject to all pupils must be an attempt stealthily to lower standards rather than being an honest attempt to improve them radically. We, and a lot of other schools like us, badly need the help of a wider body of opinion. Will it be forthcoming when the great debate is over?

Kenneth Lickley is director of mathematical studies at Kingsthorpe Upper School, Northampton. We hope to publish a detailed description of the work at Kingsthorpe Upper School in the October Mathematics Extra.

Crisis of meaning

The use which underpins the meaning of mathematics is an extremely simple and general one. By Christopher Ornell

For more than 2000 years, from the time of Plato until the beginning of the present century, a theory of meaning based on the idea of "form" flourished and was almost universally accepted. According to this Platonic view of meaning words and phrases had meaning to the degree to which they offered precisely defined forms.

Mathematics was the area in which ideal conditions for establishing meaning occurred. It was really mathematics which set the standard of meaning to which the more practical, empirical and subjective subjects could only roughly approximate.

The first crack in this theory of meaning was the discovery of Russell's paradox in 1901 (quickly followed by many related paradoxes). Relatively theory and quantum theory widened the crack. We were apparently unable in principle to achieve the required level of precision and objectivity in relation to spacetime frameworks and the position of an electron.

The accelerating pace of life has now all but swept it away. The idea that only timeless forms are real (and therefore meaningful) is simply implausible in a world in which things which previously appeared to be timeless are continually falling in the path of technological progress.

Unfortunately, in mathematics a long rearguard action has been fought against the collapse of the Greek position. Even today there are many mathematicians who seem unable or unwilling to accept the now widely agreed truth that meaning stems from function, that

spontaneity is often as important in life as timelessness. As the Platonic theory of meaning has crumbled, mathematics has not held itself into a steadily worsening crisis of meaning. The crisis is most evident in school mathematics, but is not entirely confined to school, or even academic, mathematics. Too often mathematics has been presented as a direct or implied mystique: in industrial analyses as well as in way-out primary schemes. But this is an inherently vulnerable stance, which all too easily degenerates into mumbo jumbo.

The individual realization that the mystique is evaporating may be called the "loss of the sense of meaning mathematics". Bertrand Russell describes how he suffered this after completing his work on Principia Mathematica. He describes a kind of loss of faith which has since become depressingly common among schoolchildren of all ages as well as academics.

How does it happen that school mathematics, which was supposed to have been the beneficiary of great numbers of exciting new ideas during the last 20 years, turns out to have been getting itself into more and more of a mess? To answer this question it is necessary to turn back briefly to consider the position which obtained 20 years ago.

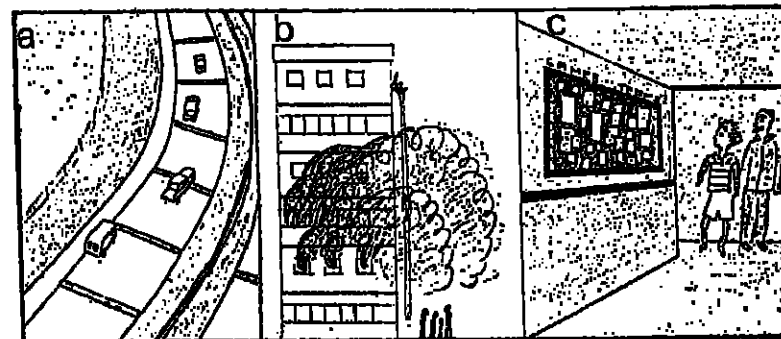
Nineteen-fifty-seven was a pivotal year, it was the year in which the United States was shamed by the first Sputnik, and it also marks the dawn of the computer age. The amazing power of the computer, when first appreciated, generated waves after waves of excitement and awe, in that mathematics' credibility with the average person soon reached an unprecedented height.

Secondary

4, etc. The depth of the present crisis lies in the fact that electronic black boxes have largely displaced the first attitude, while hastily conceived "conceptual" curricula, by overloading youngsters' capacity for abstract mental digestion, have harmed the second.

Wittgenstein said we should not ask: "What is meaning of X?" rather we should ask: "What is the use?" By the "use" of a word or sentence he meant its function or role in relation to human purposes and concepts. But although Wittgenstein's theory of meaning had a lot of interesting consequences in philosophy, it appeared to have one great flaw: it did not seem to apply to mathematics.

At the time when Wittgenstein was teaching in Cambridge applied mathematics was only a tiny corner (perhaps 5 per cent) of the total body of mathematics. It was quite absurd to think that only this corner had any meaning, or that this somehow supported the whole structure. In other words, mathematics as a whole had to be shown to have a "use" if the new theory of meaning was to apply to it successfully.



Three themes used in "sustained modelling" examinations 1974-76: (a) shows a system of proposed inflatable bumps to slow down the driver when fog descends on a motorway; (b) shows a proposed fire-scope: an elasticated nylon sleeve or hose inside which escapes slide to safety; (c) shows luminous paper in use on a games noticeboard. When it is new it is bright, and so the risk of missing a new notice decreases. From the London Examining Board AO-level Applicable Mathematics.

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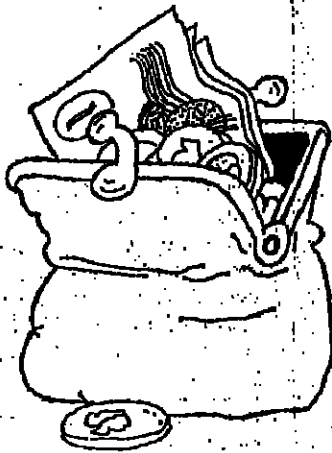
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Secondary

Sixth-form numeracy

R. A. B. Allen on a new research project for the non-mathematical

In the contemporary sixth-form many non-mathematics specialists find they require some mathematical studies. These students should develop a broadly interpreted level of numeracy consistent with their general educational attainment.

In meeting this need, the 14 regional examination boards in England and Wales, all but one are offering pilot CEE level Mode 1 exams in mathematical studies in 1977. Of these syllabuses, a considerable number are intended for pupils whose previous attainment in mathematics has been low. There are also a few which can be used as O level extension courses in particular mathematical fields according to the options chosen.

In addition to these Mode 1 schemes, some boards have been prepared to offer Mode 3. There has been a high response by schools, either individually or in consortia, which have proposed syllabuses that they have been following, or are now following, to be examined for the first time in 1977. A number of these are intended to be specific extension courses, "Mathematics for the Chemist" for example.

Of the others, a great many are recommended for what may be described as non-mathematicians in the sense that the pupils for whom they are intended are not seen as requiring a specialist mathematical background for the continued study of their main subjects. Mathematical studies for such pupils, being a new departure in sixth-form curriculum development will require much attention and effort if the courses are to be successful.

In times of educational stability it is possible to define a syllabus by a list of topics and some sample exam papers in a method which is familiar in the traditional CEE syllabuses. This syllabus can be expected to be interpreted in a similar way by teachers of widely differing location and experience.

When a revolutionary syllabus is offered, a list of reference sources is used to indicate to teachers how the syllabus designers intend the list of topics to be interpreted. Teachers' notes and sample papers (with questions and answers) may also be provided as a means of locating the new syllabus within the teachers' past experience. These measures are needed if teachers in different schools are to construct courses based upon widely divergent interpretations of the same syllabus content.

The Schools Council are only now at the stage of receiving the reports of groups commissioned to study curricula problems in mathematics at the proposed N and P levels. Some of these N level courses will be taken by the non-mathematical student. As yet no open consensus exists as to what should be taught to those students.

In producing and interpreting syllabuses for CEE and N level, then, readily available sources of reference may well prove difficult to find. However, a new mathematics project has started which hopes to solve some of the problems.

In September, 1976, a BP research fellowship was established to research, write, develop and evaluate teaching material, methods, and assessment techniques for 16- to 19-year-old pupils/students who have little or no ability in mathematics.

Part of my brief, as the appointed fellow, is to teach the material as I develop it. The fellowship is being supervised by the University of London and is tenable for three years at the United World College of the Atlantic. The sixth-form boys and girls at this college must all study mathematics

to prepare for their International Baccalaureate Diploma (A university entrance qualification).

The fellowship is required to provide some useful teaching material and syllabus suggestions for a particular exam, the subsidiary level in mathematics of the International Baccalaureate. It is clear that this subsidiary level is roughly equivalent to the CEE now being offered and the N level which is being considered. Therefore, many mutually beneficial links might be forged between myself and other bodies, schools and individuals facing the problem of mathematical studies for non-mathematics specialists in the sixth form. Any person who wishes to be associated with this research, for example, by testing teaching material, is asked to write in me.

Units of work on error arithmetic, particularly applicable to the use of electronic calculators, are now being developed and it is hoped that these will be ready for use in other educational settings late in the year. Work is also being done to develop apparatus which can be easily constructed in school for the teaching of logic, particularly for purposes of computation.

It is important for the success of such a collaborative research venture, especially in these days of educational flux, that the fellowship is seen as a catalyst for ideas and as one of many media for the propagation and sustained growth of this important curriculum area.

The first of the fellowship's project papers outlines the background to this particular project and indicates briefly the possible manner of its progress and ways in which it can be of service to mathematics teachers.

All correspondence and requests for copies of the project paper should be addressed to the BP Research Fellow, United World College of the Atlantic, St Dunstons Castle, Manorbier Major, South Glamorgan CF6 9YF.

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One important corollary of new thinking is the development of a new kind of exam based on the idea of "sustained modular" implications of a particular specified innovative proposal. Experimentally in AO level (CEE) for the last three years, and have been tried experimentally at N, P, and first-year university levels.

For many teachers these are bringing out for the first time the applicative potential of even simple ideas in mathematics. "Sustained" means the meaning of these sustained exercises which can hardly appreciate if one has only experienced the same generalized academic problems of a traditional examination in mathematics.

Compare the situation in mathematics with that in other subjects. Most schoolchildren would agree that English lessons become more interesting when stories and plays, not merely single sentences, are made the object of discussion.

Music sounds better in times like this in the form of individual bars, or (or not, according to temperament) put up with an atomizing piece of work which all too effectively does for mathematics what the German would do for their military messages: destroy its immediate intelligibility.

And we have done this unceremoniously in the name of a theory of meaning which is now quite visibly obsolete. Mathematics, we now see, does not automatically possess meaning, by Platonic gift it has to be worked for.

Christopher Ormell is a research fellow in the School of Education, Reading University. He was formerly director of the Schools Council Sixth Form (Mathematics Applicable) Project.

FE and university

Surgery sessions

Elizabeth Mann describes the use of the Schools Council Continuing Maths Project in a college of further education

In the past few years we have recognized a growing problem of mathematical deficiencies in our college entrants. The wide range of academic and vocational courses which we offer includes many which have certain mathematical concepts and skills as pre-requisites.

There are courses which demand basic numerical competence, the elementary techniques of algebra, mensuration, logic or statistics. Inevitably, the difficulties of teaching their own course material to students lacking the pre-requisite skills. The students also suffer from a sense of failure when they find they are unable to meet the demands of new work.

We have tried to solve the problem by starting what we call a basic mathematics service. This is in operation for about 18 hours each week, and includes one evening. Students cannot attend unless their attendance can be guaranteed or they can come in free periods.

The service aims to be versatile. It offers individual help to meet the student's particular needs. A careful diagnosis is made of the student's deficiencies, and an individual work programme planned. The programme is built around the student's known deficiencies and the demands of his chosen course and provides the practice needed to develop confidence—thus removing the fear of failure.

Ideally, the service operates with about six students in the room at the same time, each one following his own work programme. The tutor is always available to give individual tutorial help, and to organize the use of appropriate learning materials. In practice the numbers are always greater than six, but a significant fact has emerged, namely that student success falls off when the numbers exceed nine.

Almost all the students who have used the basic mathematics service have made significant progress. Those initially almost impossible to acquire competence in handling fractions and decimals.

Some students who entered with poor CSE grades have obtained good O level passes in statistics

and maths within two years. Some with little mathematical background have developed facility in, and pleasure from more demanding work in mathematics. Almost all the students have worked hard and have shown a high degree of motivation.

Entrants to FE are diverse in ability, mathematical experience and achievement. Consequently we found it necessary to have a wide range of learning materials available to allow suitable material to be selected for each student.

It hardly needs to be said that basic mathematics at individual student level rarely amounts to a recognisable examination course in the subject. A student's work programme is made up of single topic modules put together to meet individual requirements.

Various forms of programmed learning all have a part to play. We believe that student success depends on personal support from and involvement with a tutor.

Though help is available at any level, in practice the bulk of the demand comes from students following O level courses in mathematics of statistics. So we have welcomed the advent of CMP Category I and II units. These fit our "surgery" work particularly well.

With support from the tutor, students find they can understand and learn successfully from those CMP units we have field tested. In some instances the texts have filled a gap for which no other suitable material was available.

What now? There are still gaps in the range of learning materials required for the 16-19 age group. Through testing we have found more than half our entrants deficient in basic arithmetic.

There is some evidence to suggest that among the entire population of school leavers the proportion similarly deficient may be as high as 70 per cent. Is there a way in which CMP can extend its repertoire to meet what we have found a real and urgent need?

Elizabeth Mann is a member of the Schools Council CMP consultative committee and a lecturer at North Oxfordshire Technical College and School of Art.

Hope on the horizon

The critics of the syllabus sometimes forget the positive advantages it has brought. By John Howie

It is oddly tempting to use an article of this sort as a platform from which to issue a tirade about the deplorable state of our educational system in general and of mathematical education in particular. That I feel this temptation demonstrates that I am in tune with the times, for our nation lately has spawned whole legions of Jeremiah's shouting woe from every available rooftop and on every conceivable topic, and the Great Debate seems all too likely to become another orgy of national self-criticism. However, I firmly intend to resist the temptation and to spend at least some of my effort scanning the heavens for whatever hopeful signs may be discernible.

The most able pupils, it seems to me, are leaving school more generally knowledgeable, more socially sophisticated and more civilized than their counterparts in any generation. While it is conceded that this group of pupils has never been a problem and that it is numerically small, it is none the less an immensely important group, and we must never belittle the real and continuous successes of our educational system among these very able pupils.

Let us not forget either, that our higher education industry has achieved in the past 10 years a growth rate of which any industrialist would be proud. The number of students in British universities has virtually doubled in the past 10 years, a fact that is all the more remarkable when one considers that the population in the relevant age band has actually declined. If university education is a blessing—and I firmly believe that it is—then this blessing is available to more people than ever before.

Schools and universities have adapted very well indeed to this huge expansion, and I know of no clear and irrefutable evidence that the expansion has been achieved at the expense of standards. It is often said, of course, but that does not make it true, that standards have dropped, or that the system is currently showing signs of strain we should not over-react, for our problems, if looked at in the right perspective, are the kind of problems that afflict an industrial enterprise whose success and expansion have outpaced its capacity for adjustment.

At times I envy some of my fellow university teachers their sublimely certain that standards of mathematical attainment among university entrants are falling. Syllabuses, both in school and university, have changed so much in the last fifteen years that comparisons are quite impossible. Given the past 10 years, a fact that is all

continued on page 46

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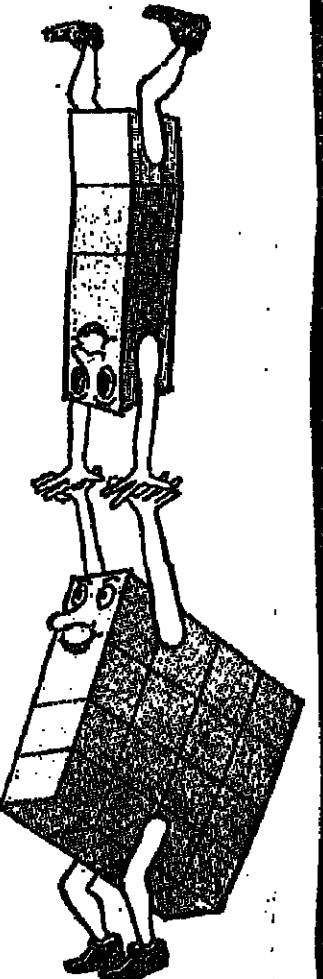
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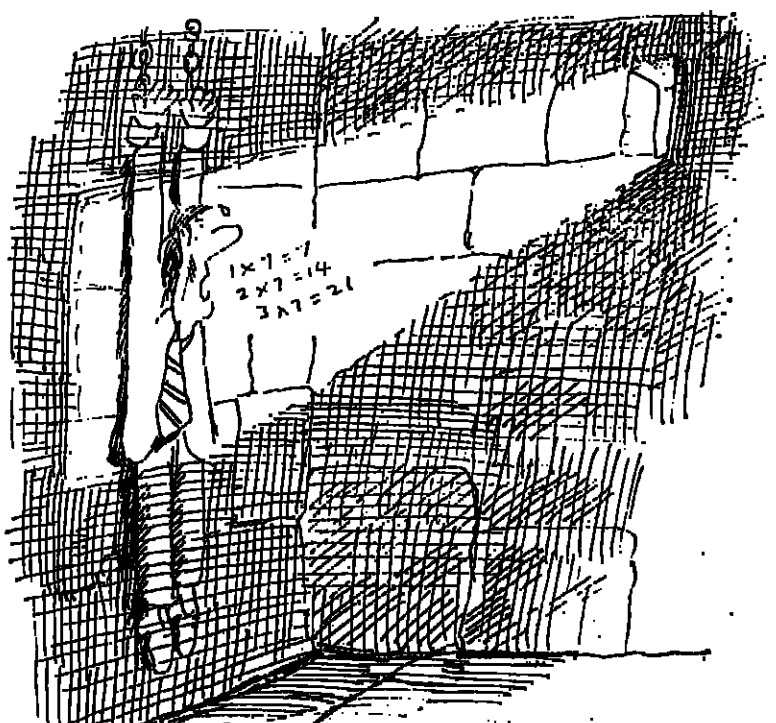
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FE and university



"No worthwhile skill can be acquired without a measure of suffering."

continued from page 45
that some topics that used to be in the later stages of a university course are now taught in schools. It might indeed seem that standards have risen, but the topics are taught in a quite different way and it is obviously absurd to suppose that the group theory taught in schools today is as difficult as the final year undergraduate. It is still harder to know whether school group theory is more or less difficult than the geometry that was taught to my generation.

Some of my university mathematics colleagues will now be straining at the leash, bursting to proclaim the discovery that here is the whole point—that the geometry I studied was of some use (an assertion of doubtful validity, incidentally) while the group theory, set theory, transformation geometry, etc. studied by the present generation is entirely useless, it confuses the mind, and may well cause blindness. New mathematics, like nuclear disarmament, has ceased to be in fashion. Indeed it is now fashionable to decry it, which is a pity, for (as with nuclear disarmament) the case for it is neither stronger nor weaker than it ever was. Now mathematics never was as splendid as its prophets claimed some 15 years ago nor is it as bad as its critics now claim.

For the new mathematics never was all that new. Certainly by the time it reached Scotland (where the conversion of schools to a revised syllabus was rapid and total) it had the character of a reform rather than a revolution and many of the most substantial changes were in language and approach rather than in content. The critics of the syllabus sometimes forget the positive advantages applied mathematics in universities do. It seems to me, find it helpful that students come from Scottish Highers with knowledge, however rudimentary, of vectors and matrices, and the absence of

formal synthetic geometry (which has not for many years been part of university mathematics courses) is no real loss.

If these points are conceded then it is natural to ask whether there is any problem at all. Agreement on educational matters is rare, but university mathematicians, physicists, and engineers seem to be united in deploring the lack of technical manipulative skill among students. Reliable comparisons with earlier generations are hard, but there seems to be an overwhelming impression of a decline in students' ability to do the algebraic manipulations that are an indispensable part of the professional skill of any mathematician or serious user of mathematics.

It is of course easy for those who are determined to lay the blame for this state of affairs at the door of the new mathematics to exaggerate the decline, to date it precisely from the introduction of the new syllabus and to deplore the passing of an entirely imaginary golden age when students believe themselves able to do the algebraic manipulations that are an indispensable part of the professional skill of any mathematician or serious user of mathematics. I should like to end this article by suggesting some possible causes and a possible remedy. My most detailed knowledge is of the Scottish situation, but I know that the symptoms are the same south of the Border and it may be that the same diagnosis and remedy will apply.

It does not seem to be the content of the school syllabus that is at fault; when I scan the pages of the mathematics books that are now used by most all schools in Scotland I find that there is a wealth of excellent material with a vast number of graded exercises of widely varying difficulty. If students knew all this when they came to university there would be no problem at all. The trouble is, probably any students do know it all. This could be due to pony teaching—and a shortage of good teachers

of mathematics over many years must have had some effect—possibly to an excessively ambitious attitude on the part of both pupils and teachers in the acquiring of technical skills.

I am inclined to think that the three are in varying measures to blame. Since the problem of teaching is likely to be with a shortage of jobs mathematics graduates do not seem to be flooding the teaching market. It would seem, therefore, that the syllabus to be examined can be made without serious trouble. Here the universities are more inclined to regard themselves as the sole customers for the products of the school examination system. From the point of view of the pupil going on to a more advanced level in mathematics or in one of the more mathematical sciences it is almost certainly better that a limited number of topics should be covered thoroughly, than from the point of view of the other pupils it may well be more interesting and more appropriate to have a broader, shallower syllabus. (The dilemma is, of course, not exclusive to mathematics.)

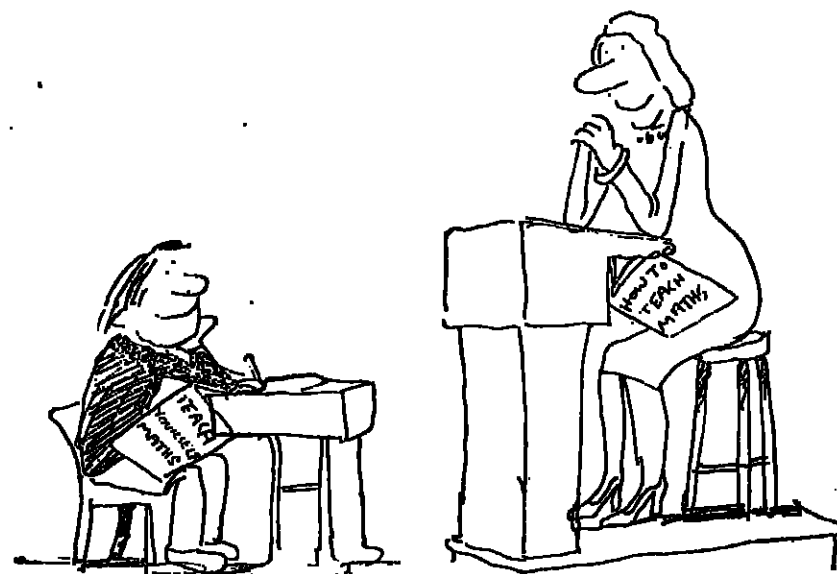
Universities must accept decisions about syllabuses as compromises between the needs of their groups of pupils and in respect of Oxford syllabuses must beware of over-stating the claims of future university students. But when it comes to A levels and Scottish Highers in a subject like mathematics, it is fair to point out that a very considerable proportion of the successful candidates cope with mathematics either as a main or an ancillary subject. It is therefore pertinent to ask whether an over-extensive syllabus treated in a shallow manner is in the best interests of a majority of the pupils involved.

It seems paradoxical to be suggesting a reduction in a school syllabus as an aid to university transition, but of course the accompanying implication is that the standard of the examination ought to be stepped up to the point where it would be at least as hard as before to get a given grade. In a subject like mathematics it is essential anyway that the examination should test not only knowledge but also insight, ingenuity and originality. The over-extension of the syllabus—and I believe that this has happened also with university honours syllabuses—has led to concentration upon knowledge, when probably the other qualities mentioned are better indicators of potential.

Such a change might also tend to correct the deterioration which I suspect has taken place in attitudes among school pupils and their teachers to technical skill. No worthwhile skill can be acquired without a measure of suffering—a truth that is well known to athletes and musicians but seems to have been forgotten in the academic sphere. There are, however, hopeful signs on the horizon suggesting that the truth is being re-discovered. Let us hope that the lament that now seems likely to take place in educational attitudes does not go too far, for in moderation it is just what we need.

Dr Howell, regius professor of mathematics, St Andrews University, is chairman of the Scottish Central Committee on Mathematics and was for three years convener of the SCE Examination Board mathematics panel.

Teacher training



The spiral of deprivation

Who has allowed us to reach a stage of dire shortage of mathematics teachers? asks Neill Ransom

"Who will take us for maths today?" A pitiful plea heard all too frequently in classrooms around the country today as schools battle on in the face of a chronic shortage of teachers for a subject considered one of the two basics of educational life.

What has brought our schools to this? Who has allowed us to reach a stage of dire shortage in a subject area that society and industry set alongside English as a pre-requisite for the education of all? What hope is there of alleviating the problem in the future? And, for the sake of those pupils currently passing through the schools, what steps can be taken rapidly to allow them a fair deal?

The problem is one—like most in education—which cannot be attributed to a particular cause, but rather has a number of contributory reasons; and again like so much in education is pontificated upon with little research evidence to provide firm foundation.

Mathematics perhaps more than most subjects has produced an aura around it of mystique, of requiring special gifts. Had we done more in the past to dispel such claims it might have eased our present plight. Certainly there persists a "fear of mathematics", coupled with the almost legendary wives' tales concerning the lack of mathematical and scientific ability of women.

Some would, and do, place the blame for our present problems at the door of the Schools Maths Project and other modern schemes. But while a teaching scheme may, or may not affect mathematical learning SMP came too late to be a cause of today's chronic shortages of specialist staff. The effect that such schemes can have is to make the job of "stand-in" non-specialist staff even more difficult and therefore more detrimental. While they might do some good teaching of the basic traditional mathematics they were brought up on, the natural reaction to something foreign is often to opt out. With over 50 per cent of secondary mathematics taught by non-specialists (TES, February 4) and 95 per cent of primary mathematics taught by those without a main mathematics training course, the situation is grave.

As with many aspects of schooling, society has done little to help and much to hinder our problems. The 1950 boom in computers rapidly followed by the existing ascendancy of the accountant in management of the sixties did little to alleviate mathematical shortages in schools. The population bulge with its resulting increase in actual schools only served to spread what "icing" there was a little thinner.

The fall in discipline in schools, like society, has surely also had its effect upon subjects which demand discipline and rigour more than most—thus mathematics and the sciences have suffered. Society has been sold an easy approach to most things, and the soft-option subjects have gained at the expense again of physical sciences and mathematics. In this connection it will be interesting to see the results of

a research programme being started at Southampton University into why 16 to 18-year-olds do not choose mathematics.

The law of diminishing returns is well known, and even a fixed percentage entering teaching from those studying mathematics is no good to us if the total is ever-decreasing. We are now well down the spiral of deprivation where less and less produce fewer and fewer. Who is to be wooed along the paths of mathematics if no enthusiasm is transmitted by those with a love of the subject?

So, is there a way out of the situation?

To anyone who views problems as a challenge, and sees in the present unfortunate cut-backs in education and unemployment of teachers a chance to improve quality and be a little more selective, there would seem to be a way ahead. However, it will need Government, DES and I.e.s to take the initiative quickly.

In the long term there must not only be control of overall numbers of teachers in training—and of late surely all who read papers know that some attempt is being made at this—but there must be some control to ensure adequate qualifications for the curriculum. The present situation—with a dearth of teachers in mathematics, modern languages, and technical subjects while we have far too many trained for DE and the humanities for example—is ludicrous.

There must also be some control on entry standards, which is an area the Joint Mathematical Council has recently been looking into. In a paper entitled "Levels of professional qualifications and requirements for mathematical teachers", the Council suggests a basic requirement of O level for anyone to train as a teacher of mathematics—be it as a secondary specialist or part of a primary package. It also produces fairly obvious guidelines such as, for a teacher to O level requiring an A level plus suitable professional training in method. The council's current chairman, Professor Brian Griffiths of Southampton, says they estimate a time scale of five years to allow the CNAA and other awarding bodies to build in these requirements, but that it could be some 20 years before the bulk of those entering the profession will comply. Even then, this represents only a small part of the existing teacher force who will still be at post.

The other major step, unpopular though it might be with many, could be to recognise the market worth of the subject in competition with industry and commerce and to pay maths-trained staff an extra allowance whilst they spend their day teaching the subject in the classroom. Many mathematics and science staff have already resented the benefit of their logical mind and training and moved on to management posts in schools of all sizes—thus depriving the classroom. In the short term it would be to benefit those currently passing through our schools—the remedy

must lie with those of us actually in the schools, backed very strongly, one would trust, by the I.e.s. machinery. The DES has already made a start by inviting 10 colleges to run one-year conversion courses for non-maths specialists, though it is unlikely many serving teachers can be spared.

So, in schools an intensive series of in-service—preferably in school—courses on both content and method must be run, by department heads, perhaps after having themselves attended an I.e.s. training course. In the primary schools a local level approach probably not be Fletcher based, but simpler and more standardized.

If the next school year were to see started a "saturation policy" of training our present staff to teach mathematics, whatever their subject background, we should be well on the way to overcoming the situation we have inherited. Then, perhaps, pupils would know who their real maths teacher was each day.

Neill L. Ransom is a senior teacher at Richard Aldworth School, Basingstoke, director of the national course "Timetabling in the secondary school" and holder of a 1977 Churchill Fellowship to study management of large schools in the United States and Canada.

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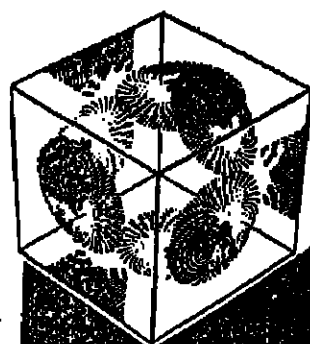
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Classroom approaches

Practical thinking

John Baker on the new Open University course in mathematics education

The current debate on core curriculum and its concentration on basic skills is in danger of missing two important points. The first is that skills taken out of context are like fish out of water. In particular, the ability to work with numbers is only worth acquiring if there is a pay-off that relates to children's needs as they perceive them. The initial pay-off may come simply from the joy of practising a newly acquired skill, but such joy will soon wear thin if use of the skill is not directed towards practicality and relevance. The confidence to use a skill properly can only be had if the skill is practised wherever it is appropriate. And for mathematics, every other subject is an appropriate practice ground.

For example, imagine a class of 13 year olds working on one of the latest history projects—"The Mystery of the Empty Grave". Part of the evidence presented to date the burial is a collection of coins. Coin experts studying the find said: "Only one coin could definitely be identified with a king—King Theodebert II who reigned 592-612 AD. There may also be coins connected with three other kings—Clothair II (reigned 613-29 AD), Dagobert I (reigned 623-38 AD), Clotaire (reigned 639-57 AD). This helped the experts to work out a tentative date when the coins could have been put together in the purse—about the year 625 AD."

Children having confidence with numbers will not be put off by the ones involved here—592, 612, 613, etc. They will soon get going on their own investigation.

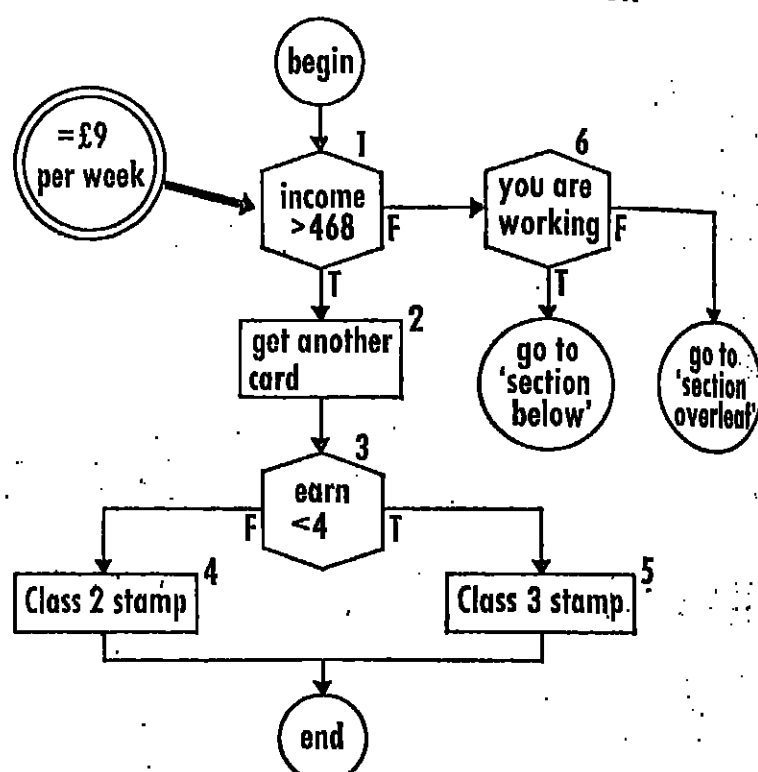
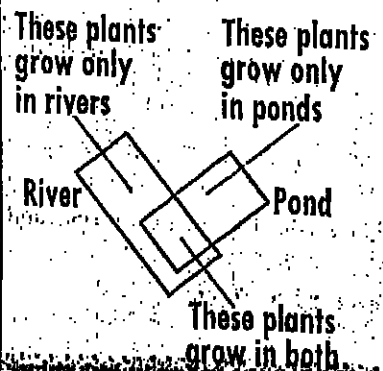
Theodebert comes to the throne
 Clovis dies

$$(592 + 657) \div 2 = 624 \approx 625$$

So that's how the experts worked it out. And if the concept of order is one with which they have equal confidence, their investigation follows with: "If the coins with Clovis' head really are in the find, the earliest possible date for the collection is 639."

The second point on which the debate may founder is that arithmetic skills are only a part of the total picture. Not to recognize the progress that has been made in curriculum development in mathematics over the last 15 years would be a failure that cannot be afforded. The ideas of so-called modern mathematics (set, relation, etc) are not only central to the development of mathematics, they have a fundamental service role to play as tools for thinking about (conceptualising) and working out (analysing) situations in every subject area.

As a very simple example of where the idea of set was useful, two 12 year olds were investigating the differences and similarities between plants that grow in rivers and plants that grow in ponds. They were having difficulty working out the possibilities and a diagram (see below) helped them to see the options clearly, as well as providing a framework for classifying the data they subsequently collected.



The two examples given so far are typical of the material that a group of mathematicians and educationists at the Open University have been gathering for a new course in mathematics education. The main theme of the course will be to show that mathematical thinking can be of great value to children right across the curriculum. It is a theme which follows very naturally from that developed in the Open University's reading diploma and is closely linked to many of the ideas expressed in the Bullock Report. In fact chapter 12 of Bullock is no less relevant if the word "mathematics" is substituted for "language" throughout.

The Open University group is keen to make sure that their course covers a wide range of concepts and skills. They believe that ideas can be of great value to children right across the curriculum. Their explicit use. This belief can be supported by hard evidence from a number of sources:

● The Schools Council mathematics curriculum project is soon to publish a large collection of the uses of mathematical ideas, drawn from many different subject areas;

● The whole of one number in the most recent volume of Educational Studies in Mathematics was devoted to a curriculum project in Holland that concentrates on using mathematical ideas to solve problems based in the children's everyday experience;

● At the third ICME conference in Karlsruhe, one of the most exciting projects was that of USMES (unified science and mathematics in elementary schools), where the whole emphasis is on reality and relevance. Here mathematics is given the same treatment as carpentry, namely it is used as a skill or tool to be picked up when it is needed—and needed it certainly is if your aim is to persuade a ruling central county council that the road outside your school is dangerous and needs a panda crossing.

Finally, a special aim of the Open University group is to show that a mathematical approach to fruitful situations can be very particular: mathematical concepts seem to be emerging as a most valuable device. It is that of network and its extension to the idea of a flow chart. To illustrate the power of flow charts as an analytical tool, here is a passage taken from the National Insurance guide for young people.

"So you must get another card and put on it a Class 2 (self-employed) stamp if your earnings are £4 a week or more, or a Class 3 (non-employed) stamp if your weekly earnings are less than £4 (but if your total income is £489 a year you must get a Class 4 stamp...")

excusal as shown in the sections "If you are working for yourself (ie, self-employed)" and "If you are not working (ie, non-employed)".

Logically, the passage appears to start with instructions of the form, "Get a new card" and "If you earn less than £4 then..." but a more careful analysis shows that this is not so. A full flow chart for the process looks more like the diagram above.

Apart from revealing a major flaw in the way the paragraph has been constructed, the logic and hence meaning of the excerpt is now much clearer. The suggestion here is not that the National Insurance guide should have been written in flow chart form (that is a separate issue). Rather, if you were young and starting employment, you would need this mathematical technique as a means to a very necessary end.

For too long a social antipathy ("I always was hopeless at maths") has been allowed to prevail in classrooms. It is time for every teacher to shoulder his responsibility as a user of mathematics.

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Educational Studies in Mathematics, Vol 7 No 3 (1976).

Ling, J. F. "Mathematics Across The Curriculum" (Blackie 1977).

Schools Council history 13-16 project "2 Detective work" (Williams McDougall 1976).

Williams, A. "Reading and the Consumer" (Hodder and Stoughton 1976).

John Baker is a lecturer in mathematics at the Open University and chairman of their Mathematics Education Group.



Classroom approaches



One aspect of mixed ability teaching—a class project, "Measuring Myself".

Investigating mixed ability

Report on the Schools Council working group by P. A. Bailey

The teaching of mathematics to mixed ability groups is a controversial issue about which much has been written and said. The recent document "An appraisal of problems in some key subjects by HM Inspectorate" mentions that in some cases problems have been accentuated by the decision to adopt mixed ability teaching for mathematics. The mathematics committee of the Schools Council has been aware that the problems of teaching mathematics in a mixed ability class are sufficiently distinctive to merit special study. With this in mind last April they set up a working group to carry out a one year survey of current practice and to produce a report which they hope to issue later this year.

The group includes classroom teachers, advisers and lecturers. Initially a questionnaire was sent to local education authorities asking for details of schools which were using mixed ability teaching in mathematics in the age range 11 to 16, persons with experience in this field and any active local groups producing materials for mixed ability classes.

The group identified 26 schools which represented a fair cross-section of current practice. These schools were contacted and two day visits arranged. Persons with experience and active local groups were invited to make written submissions to the group.

During visits to schools various aspects of teaching mixed ability classes were explored by talking to teachers and children, or by observing what happens in the classroom. Particular areas of interest were: departmental philosophy; organization; teaching models; course content; materials used; assessment and evaluation. Some schools which had special problems or features were revisited. These revisits included a further investigation of a variety of schemes, methods and materials and also included schools with a

high immigrant population (and hence language difficulties), and teachers for remedial work and assessment, team teaching, mixed ability up to 16, mode 3 examinations, a degree of pupil choice built into the scheme, schemes using a variety of teaching models, a strong emphasis on investigation type work, a strong emphasis on "traditional" course content and a gradual introduction of mixed ability teaching.

From our visits predominant teaching models have become apparent. These models tend to overlap within schools since a variety may be used with different classes and, in some cases, a combination of models may be used with an individual class. Whole class activity involves all the pupils in the study of the same topic at the same time. The pupils may either be working from material in the form of worksheets, workbooks or topic workbooks, or be involved in various levels of investigation of a teacher initiated problem or activity. Group work involves small groups within the class carrying out different tasks from a variety of either commercially published or school produced sources. The most popular teaching model is some form of individualized work. Pupils may work on materials from a structured scheme where the tasks are assigned systematically or by the teacher, or they may choose their tasks from a bank of material with guidance from the teacher.

These models will be described in more detail, together with actual accounts of classroom practice, in the working group's report which will issue later this year. In producing this report the aim is not either to promote or to discourage mixed ability teaching but to make available to all those interested, the experience in mathematics of other teachers. It will include a discussion of the possible desirable aims of mathematics teaching and how these aims are

achieved in mixed ability classes through such considerations as good quality and variety of tasks, providing continuity of learning; developing pupil autonomy and encouraging mathematical discussions in the classroom. A comparison of the different teaching models in use will be given using the criteria of organization in the classroom, tasks and their purpose, resources and their organization, differentiation between the different abilities, task assignment, the teacher's role and discussions within the class.

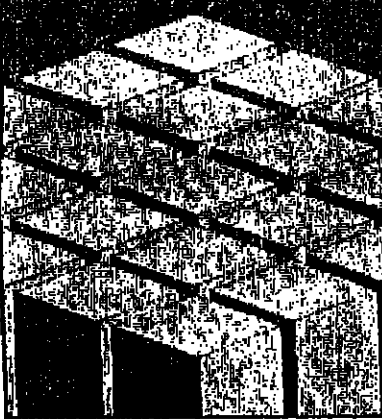
A audio-visual pack containing slides, a commentary and overhead projector masters may be available to complement the report. It will illustrate some of the findings and will be particularly useful for in-service training and teacher education. Topics such as ways of operating, materials, the role of the teacher, evaluation, remedial provision, float teachers, assessment and records, structured schemes, homework and planning will be shown.

To introduce the results of its work the working party proposes to hold a residential weekend in Birmingham, September 9-11. The total cost (excluding travelling) will be £12 per head. The conference will be specially designed for mathematics advisers, curriculum development officers, heads and teachers who might be concerned in an advisory role in their own areas and schools, and others who are in a position to initiate and support local development work. Of course, teachers not so immediately concerned would nevertheless find the study weekend of interest. Full details will be available in the summer term but those interested should write to Mrs J. A. Denyer, The Schools Council, 160 Great Portland Street, London W1N 6LL. Further information on the work of the group may be obtained from the Secretary/Writer, 56 Woodland Lane, Leeds LS7 4PD.

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Classroom approaches

Making good use of the machine

The work of the SMP Computing in Mathematics Group described by Rosemary E. Fraser

Educational innovators are often pictured as irresponsible—seizing the latest gimmick or novelty in advance their own hard-earned theories. The approach which many bodies, including the School Mathematics Project, are taking to electronic calculators suggests that, in this case, the above statement is far from the truth.

Interest task of the SMP Computing in Mathematics Group. A number of books and materials have been published in the past few years—for example, the Teacher's Companion 11 to 16, a general discussion of the use of computers in maths teaching and discussion of their application in particular areas.

The understanding of equations and their solutions. Trial and error dialogues leading to iterative processes give a new approach.

The appreciation of the power of mathematical modelling. The possibility of building simple models and then testing their behaviour gives scope in many branches of study—simulations, probability experiments, etc.

The appreciation of number, size of number, estimations, approximations, errors, number patterns, sequences, limits, convergence, divergence.

Application of logical thought through producing algorithms that are used to clarify the process rather than disguise it.

The experience of members of the group, together with teachers using the materials, supports the belief that computers and calculators can provide motivation and aid the better teaching of maths. In addition, the machines can help to give new insights into maths. Their influence may well lead to changes in the content, emphasis, order and presentation of the maths curriculum.

Mrs Rosemary E. Fraser is senior lecturer in mathematics at the College of St Mark and St John, Exeter, Plymouth, and a member of the SMP Computing in Mathematics Group.

From the past

Have we learnt anything in half a century, asks F. W. Kellaway

To those who aver that things are not what they used to be, there always comes the retort that they never were. What views on mathematics have been accepted doctrine in, say, the last half-century? Some references to official documents may be illuminating, and thought-provoking.

The only uniformity of practice that the Board of Education desire to see is that each teacher shall think for himself, and work out for himself such methods of teaching as may use his powers to the best advantage and be best suited to the particular needs and conditions of the school. Uniformity in details is not desirable even if it were attainable.

The 1927 edition of the Handbook was much influenced by the just published report of the consultative committee on The Education of the Adolescent (the Hadow report). The section most relevant to this article is headed "Arithmetic and elementary mathematics", was largely concerned with an "ability to apply numbers to everyday problems" with "applied and concrete arithmetic, rather than abstract arithmetic."

In central and senior schools, where a three or four-year course was available, the consolidation of the rules of arithmetic was desirable, with "speed and accuracy looked for in an increasing degree". In the later years a bias of applications might appear. Trigonometry and elementary geometry (solid geometry) and experimental mechanics might find a place.

As for girls, "certain difficulties of conditions, interests and ability necessitate differences in the selection and treatment of the subject-matter". The "average girl's out-of-school experience" was somewhat narrower, while, without instruction in woodwork or metalwork, there were fewer opportunities for concrete applications of geometry or practice in measurement. "It should not be assumed, however, that those aspects of the physical world and of social life, which are better understood by persons who have had a mathematical training, are necessarily outside a girl's interest."

But attitudes were already changing. By 1937, when a new edition of the Handbook was issued, which remained in use until after the war, our subject had become mathematics. Its threefold aim was set out: "To help the child to form clear ideas about certain relations of number; time and space; to make the more useful of these ideas firm and precise in his mind through practice; and to enable him to apply the resulting mechanical skill intelligently, speedily and accurately."

master them at the right time, he is hampered in all subsequent work. Some "automatic knowledge" could be assumed at the end of the infant school stage, and the board's educational pamphlet 101, Senior School Mathematics showed that, on transfer from junior to senior school, the parts of the syllabus "which may fairly be expected to be permanently known by all normal pupils" were:

Addition and subtraction of whole numbers, money, lengths, times, weights and capacities without undue complexity as regards numbers and units. Short and long multiplication and division of numbers. The process of reduction applied to simple examples only. Short multiplication and division of money, lengths, times, weights and capacities.

Application forms from Headmaster, St. Adam's School, London, should be sent as soon as possible to the Education Committee, 111 St. Mark Lane, London E1 1BB. Applications should be sent to the Headmaster, St. Adam's School, London, as soon as possible.

There was a familiar note, too, in the 1963 Newsom report, Half Our Future, which was concerned with "pupils of average or less ability, whose progress in the index we find in mathematics (see also Numeracy)", and in the text is a recognition that "many of our children (that is, the average or less than average) will not have acquired facility in the four multiplications of addition, subtraction, multiplication and division in the primary schools". Was it possible to develop "new approaches to mathematics for the slow arithmetical comparable to the successful approach to reading for the backward reader?"

By 1967, when Children and their Primary Schools was published, it could claim that a revolutionary change was under way. An emphasis on mathematical concepts, discovery methods, character sets and shapes replaced the rote approach. "There was experimentation at the secondary level also, with 'projects' galore. These discursive notes are not intended to have a moral. Nevertheless, it is noteworthy that this period, with its changing approach to mathematics teaching (both in terms of content and method), has coincided with an increasing chorus of complaint from parents and employers that children are ill-equipped for the tasks they have to perform.

Notions of a core curriculum, of a minimal mathematical achievement not vastly different from that of 1911, and of a graded course, are qualifications for a new gaining ground, if they prevail, will the complaints cease?

SECONDARY English continued from page 38

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R.E.—Head of Department Scale 4
English—Head of Department Scale 4, Graduate
Mathematics—Head of Department Scale 4, Graduate
Science—Head of Department Scale 4, Graduate
Design (Incorporating Art, all craft subjects, T.D., Home Economics, Needlecraft)—Head of Department Scale 4, Graduate.
Languages—Head of Department Scale 4, Graduate, French essential.

Teachers are also required in (a) P.E. (b) History or Geography on Scale 3. (c) Music. (d) Science. (e) Design on Scale 2 and in (f) English and (g) Languages on Scale 1.

First time applications are invited for these last two posts.
Willingness to teach another subject, temporarily, will be an advantage in most of these posts.
Application forms and further details may be obtained from Mr. D. J. H. Knowles, Northern Area Education Officer, County Hall, Bedford, to whom they should be returned by 1st April, 1977. S.A.E. please.

London Borough of RICHMOND UPON THAMES

SHEEN SCHOOL
Park Avenue, East Sheen, SW14 8RG

Applications are invited for the following posts at this new mixed comprehensive school for 900 pupils aged 11-16 opening September 1977.

Curriculum Coordinator
Group 10 Deputy Head School

Duties include leadership of team of directors of study and faculty heads and oversight of school academic programme, timetable production, curriculum monitoring and development.

Faculty Head of Science and Technology, Scale 4

The faculty is one of 4 administrative groupings in the school organisation and includes departments of mathematics, physical sciences, biological studies and technical studies. The faculty will comprise 14 teaching staff and three technicians and will have excellent laboratories and technical workshops.

Head of Technology, Scale 3 or 4

An experienced and well qualified craft teacher is required to administer the department of technology within the school faculty structure. The department will comprise three staff and 1 technician and is housed in a modern purpose-built block with ancillary accommodation for woodwork and technical drawing. It is intended to establish close links with both art and science departments which are conveniently located nearby.

Forms and further particulars (foilsca.p.a.s.) from Director of Education, Regal House, London Road, Twickenham TW1 3QB returnable to the Head Teacher Designate at the School by Wednesday, 30th March, 1977.

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Educational Appointments

Unless otherwise stated posts are for September, 1977, and application forms are obtainable from and returnable to the Headteacher (s.a.e. please). Men or women required for the following posts:—

ST. MICHAELS R.C. (Aided) SCHOOL
CARLTON ROAD, BARNSELY
Headteacher G Rogerson, B.A., B.Sc.
Deputy Headteacher—Group 7
at this mixed (11-16) Comprehensive School with 361 pupils.
Application forms and further details obtainable from and returnable to the Education Officer, 50 Huddersfield Road, Barnsley by 1st April (s.a.e. please).

WORSBROUGH HIGH SCHOOL
ARDSLEY ROAD, WORSBROUGH DALE, BARNSELY
Headteacher S. Hughes
Head of English Department (Scale 4)
To be responsible for the leadership and development of a large department in this 11-18 Comprehensive School which has a well established sixth form. Application forms and further details obtainable from and returnable to the Headteacher (s.a.e. please).

ST. HELEN'S SCHOOL
CARLTON ROAD, BARNSELY
(11-16 Comprehensive, 770 pupils)
Headteacher D. C. Bate
Head of Upper School (Scale 4)
Applications are invited from Teachers with substantial experience in Secondary Education. The successful applicant will be responsible for the care and discipline of 4th and 5th form pupils and will be expected to play an important part in planning the Educational programme for these senior pupils.

HALL BALK SCHOOL
HUDDERSFIELD ROAD, BARNSELY
(800 girls)
Headteacher Miss E. Dawson, M.A.
Teacher Librarian (Scale 3)
The post involves a heavy teaching commitment but the range and subjects could be flexible on the Arts side according to academic qualifications. The responsibility for the Library is, however, paramount. The School's intake is comprehensive to the age of 16 but the VIII form is recruited from the former selective Grammar School.

WOMBWELL HIGH SCHOOL
ROEBUCK STREET, WOMBWELL, BARNSELY
(Mixed Comprehensive, 1,400 pupils, 11 to 18 years)
Headteacher F. Lane, M.Sc.
Experienced Graduate Mathematician for the post of second in a department of seven Teachers (Scale 2 for suitably qualified applicant).
Experienced Teacher as Head of Remedial Department (Scale 3)
Applicants should be able to show past experience of work of this nature, and the necessary organising ability and commitment to this type of teaching. At the present, remedial classes are taught for approximately half of their timetable by one individual teacher. Application forms and further details available from and returnable to the Headteacher (s.a.e. please).

EDWARD SHEERIN COMPREHENSIVE SCHOOL
NEWSTEAD ROAD, ATHERSLEY, BARNSELY
(11 to 18, 728 on roll, E.P.A.)
Headteacher J. Bramley, B.Sc.
Teacher (Scale 2)
Energetic, enthusiastic, determined person to be Head of Home Economics (Scale 3). 'O' and C.S.E. level courses in Domestic Science and Needlework are already established while the subject is taught in the first two years within a Creative Studies framework to all pupils. Teacher (Scale 2) to whom the subject can be transferred. Apply by letter to the Headteacher giving full curriculum vitae and two referees.

THURNSCOPE COMPREHENSIVE SCHOOL
CLAYTON LANE, THURNSCOPE, ROTHERHAM
(Mixed 11 to 16, 840 pupils)
Headteacher D. P. Owen, B.Sc.
Required for Easter or September.
Mathematics Specialist (Scale 1)
to teach at all ages and ability levels. A subsidiary interest in Art or Outdoor Education would be welcome but is not essential.

KIRK BALK COMPREHENSIVE SCHOOL
HOYLAND, BARNSELY
Headteacher R. Hillon, B.A.
Teacher of Girls P.E. (Scale 1)
Hockey specialist preferred.
Teacher of History (Scale 1)
All subsidiary subjects will be considered. Apply by letter to the Headteacher giving full curriculum vitae and two referees.

WARWICK
THE KING'S HIGH SCHOOL, 100
LITTLEWOOD STREET, WARWICK
Direct Grant/Independent
Comprehensive School for girls.
Required for September, 1977.
Head of Religious Education
The school is seeking applications for the post of Head of Religious Education. The successful candidate will be responsible for the development of the Religious Education Department in the County. The post is a full-time position and the successful candidate will be required to attend the County Council meetings. The salary is £11,000 per annum. Applications should be sent to the County Council, 100, Broad Street, Bristol, BS1 2JQ.

COUNTY SECONDARY SCHOOLS SCALE 2 POSTS AND ABOVE

Unless otherwise stated, for all posts in this section, initial applications (giving age, qualifications, experience and names of two referees) should be sent immediately, together with stamped addressed envelopes to Head of School.

Duddeston Manor School, Great Francis Street, B7 4OR (11-18 mixed; 940 on roll)
Scale 4 + S.P.S. Allowance. Required for September. **HEAD OF SCIENCE** to lead an active department of science. Well equipped laboratory suite and complete range of work at 'O' level.

Holte School, Wheeler Street, B19 2EJ
Scale 4. **HEAD OF ENGLISH**. Large department in this multi-racial school on C.S.E. 'O' and 'A' levels.

VOLUNTARY AIDED SECONDARY SCHOOLS

Cardinal Wiseman R.C. School, Old Oscoll Hill, B44 9SR
Required September. Applications are invited from Catholic Teachers for the crucial post of **HEAD OF RELIGIOUS EDUCATION**. A Scale 3 post is offered, given good qualifications and experience. Applications, initially by letter, and further information from the Clerk to the Governors, c/o Head Teacher at the school.

COUNTY SECONDARY SCHOOLS SCALE 1 POSTS

Unless otherwise stated, requests for application forms for Scale 1 posts should be sent direct to the Head of the school as soon as possible, together with the names of two referees, and a stamped addressed envelope.

Kings Farm School, Bristol Road South, Rednal, B45 9NY
ENGLISH—one term appointment—from 19.4.77.
Golden Hillock School, Golden Hillock Road, Sparkhill, B11 2QG
Required as soon as possible. **SCIENTIST**, preferably **PHYSICIST** to join strong innovative team.
Great Barr School, Aldridge Road, Great Barr, B47 0JN (1,900 on roll)
(a) Teacher for **PHYSICAL EDUCATION** (Girls). Required for **SEPTEMBER, 1977**.
(b) Teacher of **ENGLISH**.
(c) Teacher for **REMEDIAL CLASSES**.
Kings Norton Boys' School, Northfield Road, B30 1DY (590 boys, Sixth Form 125)
Required at once or as soon as possible either as permanent or temporary appointments—
(a) **TEACHER** of G.C.E. 'O' and 'A'. Teaching available at both G.C.E. 'O' and 'A' levels. There is a choir and orchestra. Post is Scale 1 but involves responsibility which could lead to promotion. Etcetera, vigorous teacher sought who will put to good use the opportunity provided.
(b) **TEACHER OF ENGLISH**. For a suitably qualified and experienced candidate 'A' level work can be made available, but primarily a teacher is sought for effective teaching up to G.C.E. 'O' level in both selective (years 3-5) and all-ability (years 1 and 2) year groups.
Further information from Headmaster.
Lordwood Girls' School, Knightlow Road, B17 8QB
Required September. **TEACHER OF ENGLISH**.

VOLUNTARY AIDED SECONDARY SCHOOL SCALE 1 POSTS

Cardinal Wiseman R.C. School, Old Oscoll Hill, B44 9SR
Required for the Summer Term only: Assistant teacher offering **SOCIAL STUDIES**—specialist subject: **GEOGRAPHY**.
(b) Required for September: a teacher of **SOCIAL STUDIES**, whose specialist subject is **HISTORY AND/OR SOCIOLOGY**.
Applications to the Clerk to the Governors c/o the school.
There is a scheme for assistance with removal expenses.

BIRMINGHAM CITY COUNCIL

DEBBYSHIRE
EDUCATION COMMITTEE
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There is a vacancy for removal of the post of Head of Religious Education. The successful candidate will be responsible for the development of the Religious Education Department in the County. The post is a full-time position and the successful candidate will be required to attend the County Council meetings. The salary is £11,000 per annum. Applications should be sent to the County Council, 100, Broad Street, Bristol, BS1 2JQ.

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There is a vacancy for removal of the post of Head of Religious Education. The successful candidate will be responsible for the development of the Religious Education Department in the County. The post is a full-time

COUNTY OF SOUTH GLAMORGAN
 Required for April unless otherwise stated.
SECONDARY
CANTONIAN HIGH SCHOOL, Cardiff
 (11 to 18 Comprehensive) 10 form entry
RELIGIOUS EDUCATION
 To teach mainly forms 1 and 2. This is a temporary appointment for the summer term.
CARDIFF HIGH SCHOOL, (11 to 18 Comprehensive)
 6 form entry
CHESTNUT, Scale 2
 Required for September to teach the subject throughout the school to 'O', 'A' and 'C' levels and integrated science in form 1 and 2. Some experience of 'A' level teaching is essential. The school has a large sixth form.
ST. CADOC'S R.C. COMPREHENSIVE SCHOOL, Harry
 (11 to 18) 3 form entry
GEOGRAPHY, Scale 1 or 2
 Graduate teacher to teach throughout the school to 'O' level and C.S.E. Suitable applicants should have knowledge and a willingness to assist in its teaching, to an advantage. A Scale 2 allowance is available for a suitable candidate.

SPECIAL
MEADOWBUSH RESIDENTIAL SCHOOL, Cardiff
 (For children with severe speech and language disorders) (Teacher) : Scale 1
 Required for September, teacher able to offer physical education with special interest, in movement and dance. Qualifications to teach Pigeon-Gorman sign system an advantage.

PRIMARY
CHURCH IN WALES GROUPED SCHOOLS
COMMITTEE OF MANAGEMENT
 The managers of Church in Wales primary schools invite applications from qualified teachers, who are practising members of the Anglican Communion, for posts in Church in Wales primary schools in September 1977 or earlier.
 Application forms may be obtained from the undersigned on receipt of a stamped addressed envelope, to whom completed forms should be returned within 10 days of the appearance of this advertisement.
 F. J. Adams, Director of Education, Education Offices, Kingsway, Cardiff.

Royal County of BERKSHIRE
 Closing date unless otherwise stated, 4th April 1977.
 London Fringe Allowance £150 p.a. payable in the Slough District. Lodging allowance and removal expenses schemes in operation. Assistance with housing may be available.

Primary Education
HEAD TEACHER
BESCHWOOD COUNTY JUNIOR SCHOOL
 Amblede Close, Woodley, Reading, for this Group 7 School.
 Forms and further details from District Education Officer, Reading Road, Wokingham RG11 1BT. Please quote: WSA 1736.
DEPUTY HEAD
HUNDREDFORD COUNTY PRIMARY SCHOOL
 Farnley Road, Newbury, RG11 2AA.
 For September, for this Group 6 School.
 Forms, etc., from District Education Officer, 112 Newport Road, Reading RG1 1TA.
Closing date: 1st April.

SCALE 1 POST
PARLAUNT PARK COUNTY FIRST SCHOOL
 1st Avenue, Slough, RG1 2BB.
 For April, a teacher for 6-7-year-olds with special interest in music desirable but not essential.
 Forms, etc., from District Education Officer, 112 Newport Road, Slough SL1 1EN.

Secondary Education
DEPUTY HEADTEACHER
WESTBATE COUNTY SECONDARY SCHOOL
 Crippenham Lane, Slough, RG1 5JD.
 Required for this non-selective Group 9 school, roll 510.
 Applicant to be a teaching committee member and applicants are requested to state their teaching subjects, with suitable courses to 'O' level and C.S.E. All applicants should have a minimum of 5 years' experience. Forms, etc., from District Education Officer, 48 High Street, Slough SL1 1EN.

DOMESTIC SUBJECTS
Scale 3
THE BULMERBES SCHOOL
 Chagners Way, Woodley, Reading.
 Required for September. Teacher in charge of Food and Fabric Section of Design Centre. He/she should be able to teach the whole ability range through to G.C.E. 'A' level. A considerable amount of curriculum development has been undertaken resulting in a Policy Document for the Design Centre and it is hoped that the successful candidate will be able to contribute to this work as well as taking direct responsibility for a section of the Centre. Four full-time staff and a range of Home Economics/Needlework equipment available.
 Please apply to the Headmaster (Mrs.) quoting ref.: WSA 1584A.

Special Schools
HEAD TEACHER
Group B (S)
THE PARK SCHOOL
 Milldenhall Road, Slough.
 For September for this day school for E.B.M. (M) pupils. Forms and further details from District Education Officer, 48 High Street, Slough SL1 1EN.

CYNGOR SIR GWYNEDD COUNTY COUNCIL

YSGOL BOTWNNOG
 (11-18 mixed, 1,165)
PENNAETH YR ADRAU FATHEMATEG (Graddfa 3)
 (11-18 mixed, 1,165)
YSGOL DAVID HUGHES, Portlhaethwy
 (11-18 mixed, 1,340)

PENNAETH YR ADRAU GERDD (Graddfa 3)
 (11-18 mixed, 1,340)
2 YR ADRAU GYMRAEG (Graddfa 1)
 (11-18 mixed, 1,340)

Application forms are obtainable from the Headmaster of the school, to whom completed forms should be returned by Monday, April 4, 1977.

EAST SUSSEX COUNTY COUNCIL
THE DOWN SCHOOL
 DOWN ROAD, BEXHILL-ON-SEA
 HEADMASTER, MR. C. D. EVARS, B.Sc.
 The following Heads of Department are required for September, 1977. The school will take its first comprehensive intake in September 1978.

1. Head of Home Studies, Scale 3
 The ability to teach Home Economics and Needlework essential. The candidate must have completed a course in a comprehensive school desirable. Successful teaching experience in a comprehensive school desirable.
 2. Head of Mathematics, Scale 4
 The candidate should have completed a course in a comprehensive school desirable. Successful teaching experience in a comprehensive school desirable.
 3. Head of Modern Languages, Scale 4
 The successful candidate will be expected to teach two European languages in the future.
 4. Head of Girls' Physical Education, Scale 3
 The successful candidate will be expected to develop a full range of physical activities and establish good standards in competitive games.
 5. Head of Technical Studies, Scale 4
 The ability to teach the three main technical subjects desirable. The school has well equipped facilities based on five specialist rooms. The successful candidate will be expected to teach courses to meet the current needs of technically minded school leavers.

Application forms are obtainable from the Headmaster of the school, to whom completed forms should be returned by Monday, April 4, 1977.



KENT County Council Education Committee

Ashford Division
The Towers School, Faversham Road, Kennington, Ashford
 (Coeducational, roll 900-plus)
 The following additional staff are required in September due to the development of the School:—
ENGLISH DEPARTMENT—Two Scale 1 Posts (preferably graduates).
MODERN LANGUAGES DEPARTMENT—Scale 1 Teacher for French to C.S.E. level, Language Laboratory and Audio-Visual Aids available (German taught as second language).
HUMANITIES DEPARTMENT—Two graduate teachers required to work with Humanities Department Team. Specialist interest in Geography or Religious education essential.
MATHEMATICS DEPARTMENT—One, possibly two, Teachers (Scale 1) to teach Mathematics to C.S.E. 'O' level (graduates preferred) to teach strong in the subject. Kent Mathematics Project starting September.
REMEDIATION DEPARTMENT—Teacher for slow-learning pupils. Experience in teaching reading and number essential. Remedial Department works on withdrawal system, division with very small groups of all ages.
AESTHETIC STUDIES—Teacher of Home Economics/Art, Scale 1. Purpose-developed block with opportunities for integration of Art, Home Economics and Needlework.
HEAD OF YEAR required for Upper School (Scale 3), covering one of the above subjects. Detailed job specification available.
 Application by letter to Headmaster. Further details of School available on receipt of stamped addressed envelope.

LANGLIFF (633 pupils)
 A suitably qualified graduate teacher of chemistry with some physics, Scale 1 post. An opportunity could be arranged for the person appointed to teach chemistry in parallel groups with the head of department throughout the school.
MILFORD HAVEN GRAMMAR SCHOOL
 (Co-educational, approx. 750 on roll)
 Required for September next, an assistant chemistry teacher, able to teach the full range of work up to advanced level of the G.C.E. The person appointed will also be required to teach physical science up to 'O' level standard. A Scale 2 post is available for a suitably experienced and qualified candidate.
FISHGUARD COUNTY SECONDARY SCHOOL
 Required for 1st September, 1977.
 Teacher of Needlecraft and Design to be responsible for the subject up to G.C.E. 'O' level. Scale 11 post for suitably qualified and experienced teacher.
 Applications for the above posts should be made by letter, together with the names and addresses of two referees, to the head teacher of the school concerned by 1st April, 1977.
 Canvassing directly or indirectly will disqualify.

YSGOL GYNRAED BANCYFELIN (Grp 1)
 Gwabloddwr cefnau oddi wrth atrawron profadol am awydd Prifathro/Prifathrawes yn yr ysgol uchod. Mae gwylbodaeth o'r gymraeg yn hanfodol.
 Gellir cael ffurflen cais ar dderbyn amlen gyda chyfeiriad i'r awydd, oddi wrth y Cyfarwyddwr Addysg, Adraun Addysg, Pibwrlywyd, Caerdydd, i'w dychwelyd erbyn 15fed Ebrill 1977.
 Yn eisiau cyrraif iaf Medi, 1977.

YSGOL UWCHRAED Y GWENDRAETH, PONTYBEREM
 (419 o Ddisgyblion)
 Athro neu Athrawes i ddydysu Jacarwydddeith a Hanes drwy gyrrwng y Gymraeg hyd at lefel 'O'. Posiblwydd o gyflwyno'r awydd i'w ymgysylltu gyda'r cymwysterau a'r profiad angenrheidiol.
 Dydd dafnom cefnau oddi wrth ysgol, gan roi manylion llawn, ynghyd ag enwau a chyfeiriadau dau, ganolwyr, at Brifathro'r ysgol erbyn iaf Ebrill, 1977.

YSGOL GYNRAED LLANDYBIE (Grp 4)
 Gwabloddwr cefnau oddi wrth atrawron profadol am awydd Ddirprwy Prifathro/Prifathrawes yn yr ysgol uchod. Mae gwylbodaeth o'r Gymraeg yn hanfodol. Bydd yr ymgysylltu yn gyfrifol am y safon academaidd drwy'r ysgol. Mae'r cais ffurflen cais ar dderbyn amlen gyda chyfeiriad i'r awydd, oddi wrth y Cyfarwyddwr Addysg, Adraun Addysg, Pibwrlywyd, Caerdydd, i'w dychwelyd erbyn iaf Ebrill, 1977.

YSGOL GYNRAED TRISARAN
 Yn eisiau cyn gynted a phosibl, Cynorthwydd gyda Chymwysterau (Graddfa 2). Bydd y swydd hon yn golygu dydysu drwy gyrrwng y Gymraeg a bod yn gyfrifol i'w hyrwyddo astudientiaid amgylchedd drwy'r ysgol.

YSGOL BABANOD ABERTEIFI (Grp 4)
 Yn eisiau cyn gynted a phosibl.
 Athro / Athrawes i ddydysu Cerddoriaeth a zofolau am addondod. Swydd Graddfa 2.

OSSETT SCHOOL
 Required for September 1977 HEAD OF THE HISTORY DEPARTMENT (Scale 3), at this large Mixed Comprehensive School. The closing date is April 18, 1977.
SPECIAL
 Elmwood School, Bridgewater
 (176 ENM (M))
 Teacher (Scale 1) for Middle School with Primary training. Special School experience an advantage. Closing date March 22.

SECONDARY
 Technical Studies continued

HERTFORDSHIRE COUNTY COUNCIL
EAST HERTS DIVISION
THE THIRNY SCHOOL
 (11-18 mixed, 1,165)
TEACHER OF PHYSICS
 To teach in a group of three candidates with any or no experience are welcome to apply. A Scale 2 post is available.
 An interview in the pastoral work of the school will be held and assistance with queries or other extra-curricular activities would be direct to the Headmaster.

MERTON EDUCATION COMMITTEE
WIMBORNE SCHOOL
 (11-18 mixed, 1,165)
 Required for September, 1977, a teacher of French to C.S.E. level, and a teacher of English to C.S.E. level, and a teacher of Mathematics to C.S.E. level. A Scale 2 post is available for suitable candidates.
WIMBORNE SCHOOL
 (11-18 mixed, 1,165)
 Required for September, 1977, a teacher of French to C.S.E. level, and a teacher of English to C.S.E. level, and a teacher of Mathematics to C.S.E. level. A Scale 2 post is available for suitable candidates.

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 (11-18 mixed, 1,165)
 Required for September, 1977, a teacher of French to C.S.E. level, and a teacher of English to C.S.E. level, and a teacher of Mathematics to C.S.E. level. A Scale 2 post is available for suitable candidates.



Gwent County Council Education Department
 Applications are invited from qualified teachers for the following vacancies:—
 Required for September 1, 1977:—
 (a) PHYSICS. Graduate to share the teaching throughout the school up to and including 'O' and 'A' level
 (b) GENERAL SUBJECTS.
 (c) GEOGRAPHY to 'O' and 'A' level. Scale 2 for suitably qualified and experienced candidate.

CAERLEON COMPREHENSIVE SCHOOL (11 to 18)
 GERMAN. Graduate to take charge of and develop the subject to 'A' level courses. Initially a small element of FRENCH teaching will be involved.
CALDICOTT COMPREHENSIVE SCHOOL (11 to 18)
 (a) HISTORY. To teach throughout the school. An interest in integration in the Humanities and Environmental Studies would be an advantage.
 (b) ENGLISH. The successful applicant will be second in line for the department. Well qualified person required to share in the administration and to teach the subject to 'A' level. Relevant experience in a comprehensive school is essential. Scale 3 for suitably qualified and experienced candidate.

FAIRWATER COMPREHENSIVE SCHOOL, CWMBRAN (11 to 18)
 REMEDIAL. Teacher required for lower school. Special Schools Allowance payable.
MONMOUTH SECONDARY SCHOOL
 ECONOMICS. Teacher to start Economics courses leading to 'O' and 'A' level examinations. Initially the successful candidate will be required to teach also some Geography and possibly some History. The school receives its first comprehensive intake in September 1977.

NEWPORT BETTWS COMPREHENSIVE SCHOOL
 (11 to 18)
 CHEMISTRY. To share in Nuffield, 'O' and 'A' level examination work. Scale 2 for suitably qualified and experienced candidate.
NEWPORT ST JULIAN'S COMPREHENSIVE SCHOOL (11 to 18)
 (a) FRENCH. Graduate to share the teaching of the subject from year 3 up to and including 'A' and 'S' level.
 (b) CHEMISTRY. Graduate to be Head of Department in the Senior School and to be responsible for the subject up to and including 'S' level. The successful candidate would be expected to work in conjunction with the overall Head of Science Department. Scale 3 for suitably qualified and experienced candidate.

TREDEGAR COMPREHENSIVE SCHOOL (11 to 18)
 DRESS AND DESIGN. Well-qualified teacher from a recognised Home Economics College to take charge of Dress and Design Section. The successful applicant will be required to teach to all examination levels. Scale 2 for suitably qualified and experienced candidate.
TWMPATH SECONDARY SCHOOL, PONTYPOOL
 TYPING/WRITING OFFICE PRACTICE AND/OR COMMERCIAL STUDIES. To teach the subject to C.S.E. and 'O' level. Applicants should state what other subjects they are prepared to offer. Scale 2 for suitably qualified and experienced candidate.

Application forms obtainable from the Director of Education, Education Department, County Hall, Cwmbran, Gwent NP4 2XG, on receipt of a stamped addressed envelope should be returned to the Headmaster of the School concerned by April 2, 1977.
 Successful applicants will be required to submit a satisfactory medical report on appointment.

Application forms obtainable from the Director of Education, Education Department, County Hall, Cwmbran, Gwent NP4 2XG, on receipt of a stamped addressed envelope should be returned to the Headmaster of the School concerned by April 2, 1977.
 Successful applicants will be required to submit a satisfactory medical report on appointment.

Application forms obtainable from the Director of Education, Education Department, County Hall, Cwmbran, Gwent NP4 2XG, on receipt of a stamped addressed envelope should be returned to the Headmaster of the School concerned by April 2, 1977.
 Successful applicants will be required to submit a satisfactory medical report on appointment.

JPM 10/150

Headship
Woodstock M (Maladjusted)
 Ruby Street, S.E.15
 Vacant September 1977. Roll 40. Borough Group 4(6) (subject to Borough Review), salary £5,223 to £5,835, plus £312 supplement, plus £402 London Allowance.

Please send self-addressed foolscap envelope for application form and further particulars to the Education Officer, EO/TS10, County Hall, London SE1 7PB. Closing date for return of completed application forms 8 April.

CHANNY SCHOOL, Falling Lane, Yiewsley, West Drayton, UB7 8AB
HEADTEACHER
 Group 4(5)
 Applications are invited for the post of Head of this Group 4(5) day Maladjusted mixed secondary school which will be vacant from 1 September 1977 following the retirement of the present Headteacher.

Application forms and further particulars from the Director of Education, Civic Centre, Uxbridge, Middlesex (telephone Uxbridge 50111, ext 3462), to whom they should be returned as soon as possible and not later than Tuesday, 5th April, 1977.

LONDON BOROUGH OF HILLINGDON
 London Allowance Payable 75 per cent removal expenses and home assistance with accommodation in appropriate cases.

Metropolitan Borough of Rochdale
EDUCATION DEPARTMENT

HEADSHIP
 (Group 85)
 High Birch Special (ESN) (M) School

Applications are invited for suitably qualified and experienced teachers for the above post. This mixed sex E.S.N. day school has approximately 180 on roll. The appointment will be from September, 1977.

Requests for application forms and further details (please enclose a foolscap stamped addressed envelope) should be made to the Chief Education Officer, Education Department, Municipal Buildings, Manchester Old Road, Middleton, Manchester M24 4EA, to whom they should be returned by 4th April, 1977.

County of Cleveland

SPECIAL SCHOOLS
BILLINGHAM DAY SCHOOL (E.S.N.)
 Revalix Avenue, Billingham, Cleveland TS23 2BH
 SCALE 26 POST
 Required for September, 1977, a qualified and experienced teacher. The person appointed will be responsible for further development of home/school liaison and organization and development of multi-media resources.
SCALE 28 POST
 Required for September, 1977, a qualified and experienced teacher to assume responsibility for boys' physical education and outdoor pursuits. Financial assistance with household removal expenses is available in approved cases. Application may be made by letter or on application forms obtainable from the Head Teacher at the address shown above. Applications by letter should include detailed information regarding education, training, qualifications and experience, together with the names and addresses of three referees. Letters of application and completed application forms should be submitted direct to the Head Teacher within 14 days of the appearance of this advertisement.

SIXTH FORM AND TERTIARY COLLEGES
HEADS OF DEPARTMENT
SANDWELL
 Metropolitan Borough of SANDWELL, Education Officer, Lower Lane, Woodley House, West Midlands
 Headship for September, 1977 —
 1. **PHYSICS**
 In development stages in creative and practical work. All examination levels, with continuous review for non-examination work. New facilities are shortly to be available.
 Application forms and further details available from the Education Officer, Lower Lane, Woodley House, West Midlands, CV10 2JF. Closing date 28th March, 1977.

SOUTH EAST SUSSEX DISTRICT
 BUNNINGSIDE COTTAGE, Rye Road, Rye, East Sussex, TN31 1JH
 South East Sussex District Education Officer, 56111
 Headship for September, 1977:
DEPARTMENT OF HISTORY
 Scale 1, Good Honours Graduate to teach History and Social Studies in a secondary school and in charge of the department. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

DEPARTMENT OF ECONOMICS
 Scale 1, Good Honours Graduate to teach Economics and Social Studies in a secondary school and in charge of the department. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

HAMPSHIRE
WITCHAMONTS CATHOLIC
 Winchester, Hampshire
 Number on roll 100
 For September 1977, a qualified and experienced teacher to teach History and Social Studies in a secondary school and in charge of the department. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

DEPUTY HEADSHIPS
Senior Masters/Mistresses
AVON COUNTY
 CROYDON HALL SCHOOL
 Croydon, Surrey
 Deputy Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

CITY OF BIRMINGHAM
EDUCATION DEPARTMENT
SPECIAL SCHOOLS
3. FINE HOLLOW SCHOOL
 Birmingham, Warwickshire
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

DEVON
DEPUTY HEAD TEACHER
 Devon County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

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 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

ESSEX
DEPUTY HEAD TEACHER
 Essex County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

HAMPSHIRE
DEPUTY HEAD TEACHER
 Hampshire County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

NORTHUMBERLAND COUNTY COUNCIL
SAUL HOSPITAL
 Newcastle, Northumberland
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

SURREY
DEPUTY HEAD TEACHER
 Surrey County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

NORFOLK COUNTY COUNCIL
DEPUTY HEAD TEACHER
 Norfolk County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

NORTHAMPTONSHIRE
DEPUTY HEAD TEACHER
 Northamptonshire County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

GLoucestershire
DEPUTY HEAD TEACHER
 Gloucestershire County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

DERBYSHIRE
DEPUTY HEAD TEACHER
 Derbyshire County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
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 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

SPECIAL EDUCATION
Scale 2 Posts
WOLVERHAMPTON
 Wolverhampton City Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

Scale 1 Posts
BERKSHIRE
 Berkshire County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

WILTSHIRE
 Wiltshire County Council
 Headship for September, 1977. The school has a reputation for excellence in the subject. The person appointed will be responsible for the development of the department and for the supervision of the staff.
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TAMWORTH
 Tamworth City Council
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 Application forms and further details available from the Education Officer, 56111, Rye, East Sussex. Closing date 28th March, 1977.

WIGAN
 Wigan City Council
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CROYDON
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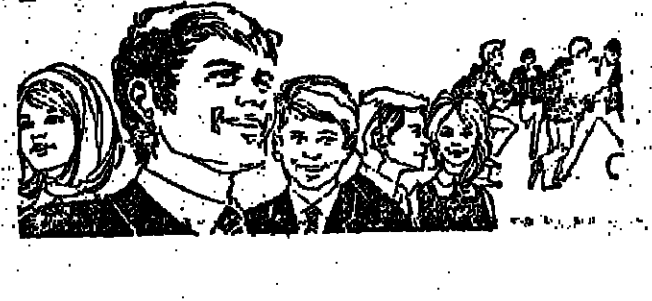
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COLLEGES OF FURTHER EDUCATION continued

LONDON
NORTH LONDON EDUCATION AUTHORITY
VETERINARY COLLEGE
NORTH LONDON EDUCATION AUTHORITY
STUDENTS SERVICES OFFICER

SALFORD

DEPARTMENT OF BUILDING AND COMMUNITY SERVICES
Applications are invited for:
LECTURER GRADE II in BUILDING SERVICES

WILTSHIRE

DEPARTMENT OF BUSINESS AND COMMUNITY SERVICES
Applications are invited for:
LECTURER GRADE I in BUSINESS SERVICES

CAMBRIDGE

THE UNIVERSITY OF CAMBRIDGE
DEPARTMENT OF MATHEMATICS EDUCATION
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

THE OPEN UNIVERSITY

MATHEMATICS EDUCATION
TWO-VISIT SECONDARY TO THE FACULTY OF MATHEMATICS
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

UNIVERSITÄT BIELEFELD

Sprachenzentrum
Required from October 1, 1977 for a period of two years (or possibly four)
A Lektor for English (Native Speaker) (BAT 11a)

UNIVERSITIES continued

BRISTOL
THE UNIVERSITY OF BRISTOL
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

UNIVERSITIES continued

UNITED STATES
THE UNIVERSITY OF MICHIGAN
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

UNIVERSITIES continued

MANCHESTER
THE UNIVERSITY OF MANCHESTER
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

UNIVERSITIES continued

THE UNIVERSITY OF SHEFFIELD
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

Colchester Institute of Higher Education

Head of School of Music
The School of Music offers courses for a B.A. (Music) Honours Degree and Certificate (C.N.A.A.) and for a range of Certificate and Diploma examinations.

MIDDLESEX

HARLOW COLLEGE OF HIGHER EDUCATION
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

SEPTON

THE UNIVERSITY OF SEPTON
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

Colleges and Departments of Art

KNPT
COUNTY COUNCIL
EDUCATION COMMITTEE
GANTHEMOUTH COLLEGE OF ARTS AND DESIGN

CANADA

CONCORDIA UNIVERSITY
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

THE OPEN UNIVERSITY

POST-EXPERIMENTAL
DEPARTMENT OF MATHEMATICS EDUCATION
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

UNIVERSITY OF BRISTOL

Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

RICHMOND COLLEGE

LONDON
The Governors invite applications for the following posts in this rapidly developing independent university college, which is licensed to award the B.A. degree by the Board of Higher Education in Washington, D.C., and has a multi-national student body of 300

Head of Faculty of English and Humanities

Applications are invited for:
HEAD OF FACULTY OF ENGLISH AND HUMANITIES

Head of Faculty of Business, Mathematics and Science

Applications are invited for:
HEAD OF FACULTY OF BUSINESS, MATHEMATICS AND SCIENCE

Tutor in English

Applications are invited for:
TUTOR IN ENGLISH

Westhill College

HEAD OF DEPARTMENT OF COMMUNITY AND YOUTH STUDIES
Applications are invited from well-qualified and experienced men and women for this important post at Westhill College.

NEWBOLN

DEPARTMENT OF BUSINESS AND COMMUNITY SERVICES
Applications are invited for:
LECTURER GRADE II in BUSINESS SERVICES

STURROPSHIRE

DEPARTMENT OF BUSINESS AND COMMUNITY SERVICES
Applications are invited for:
LECTURER GRADE II in BUSINESS SERVICES

LONDON

CENTRAL SCHOOL OF ART
Applications are invited for:
LECTURER GRADE II in ART

MANCHESTER

THE UNIVERSITY OF MANCHESTER
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

THE UNIVERSITY OF BRISTOL

Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

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Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

OXFORD POLYTECHNIC

Lectureship—Senior Lectureship in Education
(Salary £2,601 to £8,729)
and
Temporary Lectureship in Education
(Salary £2,501 to £6,805)

WILTSHIRE

DEPARTMENT OF BUSINESS AND COMMUNITY SERVICES
Applications are invited for:
LECTURER GRADE II in BUSINESS SERVICES

Polytechnics

EAST SUSSEX
HIGHLAND POLYTECHNIC
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

UNIVERSITIES

BELOUX
UNIVERSITY LIBRE DE BRUXELLES
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

UNIVERSITIES

BIRMINGHAM
THE UNIVERSITY OF BIRMINGHAM
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

UNIVERSITIES

THE UNIVERSITY OF BRISTOL
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

MINISTRY OF DEFENCE

ARMY DEPARTMENT
ARMY APPRENTICES' COLLEGE CHEPSTOW
LECTURERS
Grade 1 (Two posts)

TEMPORARY LECTURER GRADE II (BIOLOGY)

The successful applicant will be expected to teach courses at Honours degree level. A particular interest in zoology with a bias towards animal physiology and nutrition is required.

LIMITED TERM LECTURER GRADE II (CAREERS EDUCATION)

Applications are sought from well-qualified candidates to work with students in initial training and experienced professionals.

TEMPORARY LECTURER GRADE II (FRENCH)

This appointment is, in the first instance, for one year only, to teach courses in French to BA and BEd students.

TEMPORARY LECTURER GRADE II (PHYSICAL SCIENCES)

The successful applicant will participate in the teaching of courses in Physics, Physical Sciences and, possibly, Mathematics which contributes to BA/BSc (Hons) and BEd (Hons) degree programmes.

oxford polytechnic
Lectureship—Senior Lectureship in Education
Temporary Lectureship in Education
Further particulars and application forms from the Head of the Department of Education, Oxford Polytechnic, Lady Spencer-Churchill College, Wheatley, Oxford.

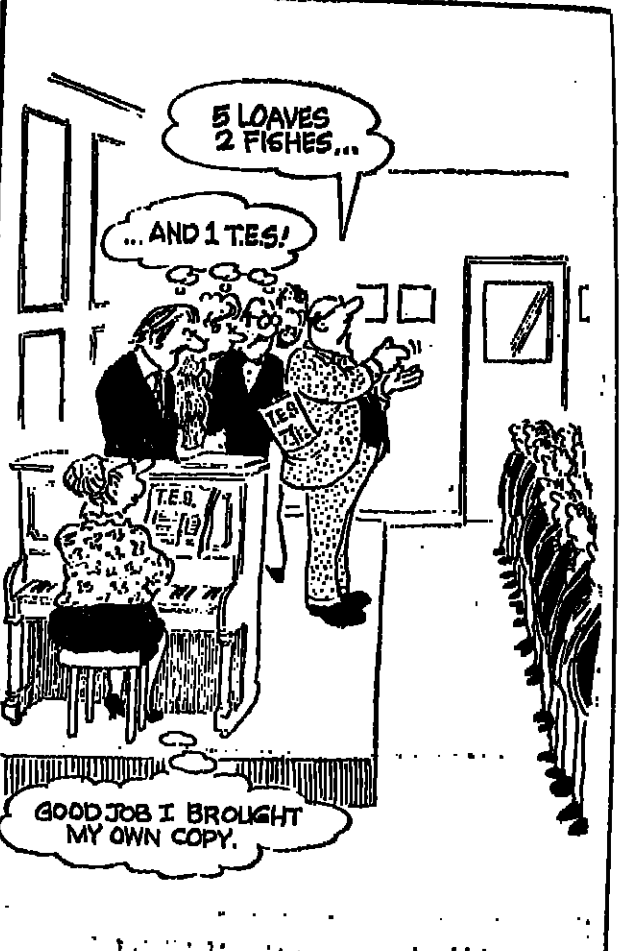
UNIVERSITIES
Applications are invited for:
LECTURER GRADE II in MATHEMATICS EDUCATION

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The Times Educational Supplement

MINISTRY OF DEFENCE
ARMY DEPARTMENT
ARMY APPRENTICES' COLLEGE CHEPSTOW
LECTURERS
Grade 1 (Two posts)

TEMPORARY LECTURER GRADE II (BIOLOGY)
TEMPORARY LECTURER GRADE II (FRENCH)
TEMPORARY LECTURER GRADE II (PHYSICAL SCIENCES)

THE UNIVERSITY OF JUBA
SUDAN
Applications are invited for posts within the COLLEGE OF EDUCATION.



Colleges of Higher Education
ESSEX COLLEGE OF HIGHER EDUCATION
LONDON COLLEGE OF HIGHER EDUCATION

Community Homes and Associated Institutions
WILTSHIRE COUNTY COUNCIL
ASSOCIATION FOR ADULT EDUCATION

Adult Education
ASSOCIATION FOR ADULT EDUCATION
HERTFORDSHIRE COUNTY COUNCIL

Assessment Centres
BARKING EDUCATION SERVICE
LONDON INNER LONDON EDUCATION

BUCKINGHAMSHIRE
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Somerset County Council
Eagle House Community Home for Boys
23 Church Street, Bathford, Bath
Small Community Home, school catering for 26 emotionally handicapped boys (aged 8 to 15) with severe learning difficulties, requires an enthusiastic teacher to take responsibility for a small intake class of boys in need of skilled remedial teaching.

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CHRISTIAN YOUTH CENTRE IN BERMONDSEY
YOUTH LEADERS and DETACHED WORKERS
Opportunity arises for Evangelical Christians to fill one existing and two new posts, and to join a team in a large and well established Christian Youth Centre, in redeveloping Inner City area.

EDUCATION DEPARTMENT
Youth and Community Officer
£2,712-£3,537 or £3,771-£4,248 or £4,008-£4,524 plus £312 p.a. supplement.
West Indian Youth Project
A Youth and Community Officer is required to take charge of this project, which is based upon City Centre premises owned by the Education Authority and recently fitted out and equipped by the Coventry Community Relations Council under a joint creation programme.

coventry
Metropolitan Borough of Rochdale
EDUCATION DEPARTMENT
DISTRICT YOUTH WORKER
Southern Area
Applications are invited from suitably qualified and experienced persons for the above post, which will be based at Aikington Youth Club, Middleton.

WILTSHIRE COUNTY COUNCIL
Education Department
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JNC III £3,426-£3,885 + £312 p.a. supplement.
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for development of the service at the Clarence Street Centre, Swindon

CHURCHLANDS COLLEGE
Perth, Western Australia
Churchlands College is situated six miles from the centre of Perth, the capital, and was established in 1972. In 1976 a Bachelor of Business Degree course was commenced and there are now some 500 students enrolled. By 1980, it is estimated that there will be some 1,000 students in the Business Studies programme. Teacher Education is the other main programme in the college and, in 1977, some 1,200 students are enrolled.

OVERSEAS Appointments continued
BAHAMAS QUIN'S COLLEGE
INDIA WOODSTOCK SCHOOL
TURKEY THE TURKISH EDUCATION SOCIETY
SPAIN INSTITUTO VASCO DE GALEA

THE EUROPEAN SCHOOLS
BRUSSELS: Uccle, BRUSSELS: Woluwe and MOL (in Baipum); LUXEMBOURG, KARLSRUHE (West Germany), BERGEN (North Holland) and VARISE (Italy).
These schools cater primarily for children of people employed in Institutions of the European Communities. They are day schools, age-range 4-19, with nursery, primary and secondary departments organised in up to 6 linguistic sections. Pupils are taught partly in their own language, partly in languages of other EEC countries.

FINLAND
FLORENCE
ARGENTINA
ROMA
BUSINESS STUDIES PROGRAMME
TEACHER EDUCATION PROGRAMME SENIOR LECTURERS
APPLICANTS should be well qualified and at least hold a graduate degree (or equivalent) in the field applied for. Further, it is important that applicants have had extensive relevant experience.

A song for losers

John Peter reviews 'Privates on Parade'

Peter Nichols's *Privates on Parade* (Aldwych) is a stroll down memory lane with a gun in one hand and an ebony cane in the other; a nostalgia show for an unsentimental age; a brutal musical; a song for losers. I know that sounds a bit over the top, but you may recall that in *The National Health* Nichols pursued a similar trick of juxtaposing himself into the hospital care of his fellows and then deftly kicking them in the shin. His art is what Shakespeare called "the inward motion to deliver Sweet, sweet, sweet poison to the age's tooth". In *The National Health* he demonstrated how an excess of organized charity corrupts the mind and body of the nation; in *Privates on Parade* he shows you how an excess of old-fashioned chin-up patriotism undermines its decency and drains its life-blood.

Ah, but does he show you, really? Plot has never been Nichols's strong suit, which of course didn't stop *The National Health* from being one of the best plays in English since the war. His method was, and is, one of savage counterpoint; the sewing of dramatic threads and the less realistic exposes a situation in which human beings are caught like flies in honey, and you observe them in suffering which is both comical and horribly convincing. The flaw of *Privates on Parade* is that Nichols is flitting with a proper plot. Now anyone who has seen his television plays knows perfectly well that he can make a play as well as anyone. But what have we here? A Service Entertainment unit travel in Malaya during the Emergency (about 1950), and their tatty routines alternate with thumbnail sketches of their daily routine to each a sharp, carefully entertaining picture of a drifting fragment of civilization. Then Nichols comes and introduces one Sergeant-Major Drummond (a vignette of controlled jovial nastiness by David Daker) who weaves his way in and out of the story to reveal himself as pimp, gun-runner, political two-timer and sinister survivor. He is a bit like *Barnet*, the choery, evil orderly in *The National Health*; but by giving him a complex story Nichols does not entirely unconvincingly. The play is a dazzling puppet show; but puppets do not have stories. And another thing: I am not old enough to know, but was the average British attitude to the local people really one of such unrelied, fatuous ignorance? Having said that, I have to wind up by saying that this is a brilliant, spellbinding piece of work, a portrait of an age and a culture drawn with a calculatedly bitter sense of nostalgia. Indeed, under its glittering surface Nichols is sending out an acerbic warning against nostalgia and all its pitfalls. His problem is that his sense of fun can get the upper hand even when, I should guess, he doesn't want it, and the nostalgia he seeks to expel makes his entry, time and again, as the celebrity of the party.

Thus the most memorable thing about the evening, and about Michael Blakemore's impeccable production, is an unforgettably meticulous performance by Denis Quilley as Terri King, temporary soldier and drag artiste; a performance which combines the sadness of an ebullient failure with the hideous competence of the second-rate stager. It is one of the shrewdest and most hilarious pieces of virtuoso acting I've seen in this theatre. He is complemented by Nigel Hawthorne's Major Flack, a marvellous figure of single-minded dotiness and blindered confidence making its way through the abattoir of the world with the dignified serenity of a well-manicured English poodle. Denis King's music matches Nichols's lyrics to make some first-rate pastiches. A pulsating, beginning, uneven and unsettling show.

Voyage of the Argo

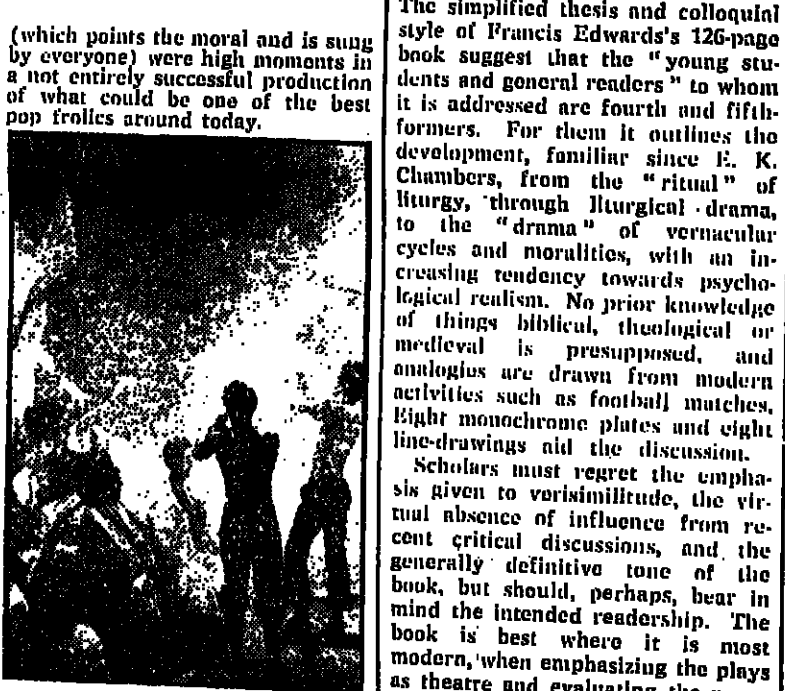
Hilary Finch on 'Jason and the Golden Fleece'

Hordes of scarf-waving, hand-clapping and singing children from over 20 schools in ILEA filled the Westminster Central Hall on Wednesday evening, March 9 to take part in the "pop extravaganza" *Jason and the Golden Fleece*, directed and composed by Alan Doggett (lyrics by Rite Ford and Alan Doggett).

His own choir, the London Boy Singers, formed the core of the chorus of Argonauts, a pop group, The Coalition played, Roy Hudd conducted. The Contour, stage production with Jeremy James and Jeremy Taylor, there were steel bands, tuned percussion and recorder groups, there were harpists and mimes, and the Golden Fleece was hung up against a heavily camouflaged pipe organ which usually dominates the proceedings. To get so many children together, not to watch but to perform, to get them to sing (and clap) together with perfect discipline is a typical Doggett aim—and achievement. It was a pity, then, that for so much of the evening the massed children's voices were completely and completely by overamplification of the Coalition group and the drums in the gallery.

This lack of balance between vocal and instrumental forces did little to promote the shifts of tension and pace essential to the work; many potentially moving or exciting moments, like Orpheus's song, the ship-building scene, the appearance of the harpies, fell short of the mark through a lack of preparation and expectation, or simply because the words were lost in a glorious hubbub of ear-piercing noise. It was all great fun—but it didn't convince as it could have done—thought at times the singing and acting of Stephen Leigh (Jason) and Mary Croft (Athena and The Hag) focused attention and carried things through. The highlight of the evening was the entry of the Dragon, slinking down the side steps, an impressive mask borne aloft at the head of a never-ending conga body composed of children, entwined in streamer-covered hoops, hissing and shuffling along.

And every London football club and school scarf waved madly at the capture of the Fleece—this and the massive canon, "Old School Song" (which points the moral and is sung by everyone) were high moments in an not entirely successful production of what could be one of the best pop trifles around today.



David Ingman

This royal throne...

Brendan Hennessy

Vivid Rex. A 26-part series. Radio 4. Sundays, 9.3 pm.

This is the art of radio at its most richly precarious: the challenge of joining 14 Elizabethan history plays, covering 11 kings from Edward II to Henry VIII (1507 to 1533), into a 26-part series, each episode 55 minutes long, understandably fascinated producer Martin Jenkins. Here is feudal England splitting apart, while the cracks of conflict between kings and barons beyond control, impelling frantic lurches from heroism to horrific treacheries; and above it all the Crown like a Italy Greil, and underlying it the attempt to understand the meaning of the symbol and to be worthy of it.

The risk lies in the wealth and complexity of the material. The dream world of radio is evoked by a racy combination of skills, including poetry, magic, juggling, and wit. It can be shattered by a few false moves. Mr Jenkins has concentrated on clarifying the story, making each episode an entity in itself, and pointing up the patterns and overall theme. His method is rigorous editing—cutting and rearranging parts of the source plays, reducing the number of characters and creating a few new composite ones, and adding lines of his own to compensate where necessary. These amounts to several hundred, the first four episodes accounting for nearly half the production of individual episodes, directing a cast of 802, has been shared with Gerry Jones, Christopher Whelan's music has a characteristic theme for each king, eerie electronic tape phonies, toe-curling drumbeats, as well as triumphant trumpets.

Marlowe's *Edward II* took up part 1 to a short way into part 3, *The Reign of Edward III* (anon) took us halfway into part 4, and this was concluded by *Woodstock* (anon). So far the narrative has sped us smoothly over time and to various parts of England and France, and has occasionally and subtly illuminated character and theme, though it has sacrificed to function. Narrator Richard Burton's sonorous notes hung on the air-like damp sheets on a clothes-line.

Here, suddenly, was magic—the Countess's alchemy of diplomacy and passion to defend her virtue and teach the king the responsibilities of kingship—and the opportunity was brilliantly seized by word good. John Hurt's Edward II, Derek Jacobi's Richard II, and also sent them straight down your ears.

The poetry, then, is to come: in the Shakespeare cycle from *Richard II* to *Richard III*, John Ford's *Perkin Warbeck* and Shakespeare and Fletcher's *Henry VIII*. It could not achieve all its aims, but it should send listeners back to the sources, and put the Shakespeare cycle into badly needed perspective.

A wee dram

Jean Redpath is a native of Fife-shire, and a graduate in medieval studies of Edinburgh University, where she came under the influence of Hamish Henderson of the School of Scottish Studies. She now lives in the United States, where she lectures in folklore and studies the oral traditions of Britain (especially Scotland) and the US. She has made several records for American companies, but *There Were Minstrels* (Trailer LFR 2106), made during a recent visit home, is her British recording debut.

It is a distinguished offering. It consists mainly of Scottish material—two Child ballads, three of Burns's songs to traditional tunes, and the lyrical "Gilderey", and has in addition some American songs, including a beautiful rendering of the great Jean Ritchie's "West Virginia Mine Disaster". Miss Redpath has a lovely voice, at home equally in big ballad or simple lyric.

Two more good albums of Scottish songs have just come out. Ian Manuel has followed his earlier booby ballad collection, *The Frosty Fingertails* (Topic 12TS220) with *Johnnie's Blues* (Topic 12TS301); and Clive Fisher, younger sister of the well-known Scots singers Ruy and Archie Fisher, together with her husband Arnie Trezise, has produced *Dalcynquhal* (Trailer LFR 2100). Both are highly recommended collections of traditional songs from Scotland, well chosen and tastefully accompanied. Both suffer, though, from occasional incomprehensibility. It would be of considerable help to the English if records of Scots singers could include sleeve inserts of the words.

Rite and ritual

David Mills

Ritual and Drama: The Medieval Theatre. By Francis Edwards. Lutterworth Press £2.95, 7188 2180 7.

The simplified thesis and colloquial style of Francis Edwards's 126-page book suggest that the "young students and general readers" to whom it is addressed are fourth and fifth-formers. For them it outlines the development, familiar since E. K. Chambers, from the "ritual" of liturgy, through liturgical drama, to the "drama" of vernacular cycles and moralities, with an increasing tendency towards psychological realism. No prior knowledge of things biblical, theological or medieval is presupposed, and analogies are drawn from modern activities such as football matches, light monochrome plates and eight line-drawings aid the discussion.

Scholars must regret the emphasis given to verisimilitude, the virtual absence of influence from recent critical discussions, and the generally definitive tone of the book, but should, perhaps, bear in mind the intended readership. The book is best where it is most modern, when emphasizing the plays as theatre and evaluating the range of responses, sometimes contradictory, which the productions of plays such as the Chester *Deluge* or *Everyman* can evoke.

Ipwich Theatre are presenting *The Merchant of Venice* (until March 26) and have arranged five afternoon conferences which "explore the processes, and problems which arise in putting a particular Shakespeare text on stage". The schools' listened hard and questioned hard—"How much is your subsidy?" "How can you justify that costume design from the text?" and "Doesn't the basket scene lose a lot by being set outdoors?" but credit is also due to director John Southworth and his company for the way they structured the afternoon.

An introductory talk dismissed any implication of homosexuality in the play but opened up the Jewish question, and then talks on design, projected scenery, lighting, costume and characterization precluded discussion groups and question-and-answer sessions with the cast. Because the management has channelled students into specific arenas (A level students attended all together yesterday), and because there was an apparently confident assumption that groups would discuss points raised and would ask questions, there was no awkward silence and no giggling. This unapologetic and uncondescending approach paid valuable dividends.

David Sell

Unnatural disasters

TONY HOWARTH reviews Europa Nostra

Europa Nostra: Europa Nostra, 86 Vincent Square, London SW1P 2PG. On hire from: Golden Films, Stewart House, 23 Francis Road, Windsor, Berks.

Whether Tony Benn, Peter Shore, Dennis Skinner and Uncle Jack Jones and all like it or not, these islands of Britain and all things that live, grow or stand upon them are part of Europe. And this Europe of ours, this cradle of the Renaissance, this reliquary of Christendom, this treasure house, is fast being ruined to resemble a knacker's yard. The Eternal City is a garbage heap; Paris a smelly and anything but merry go-round, run, it seems, for the profit of Citroën, Renault and Peugeot; London the playground of punk architects who have done more damage in a decade than the yobboos of Chelsea's "Shoek" could manage in a century of anarchy Saturdays.

The provinces too have been abused—mutilated by unnecessary demolitions, suffocated by traffic, decayed by advertisements. Places whose buildings are still worth looking at are seasonally flooded by north tides of tourists. Rocamadour in August is as like Blackpool as it is like Lincoln. The "redevelped" centre of Bristol is like the redeveloped centre of anywhere. We move, like zombies, towards a city of samesville, simpolopolis, "à la vie olde tourtovine". Meanwhile, governments and local authorities, the supposed guardians of what is worth preserving, funk their responsibilities or sell them for a mess of concrete and the teyevue from parking lots. There are honourable exceptions, but some of them still need to be convinced that the preservation of what is beautiful is part of their job. What does go through the minister's/mayor's mind when he declares open yet another hospital/school/supermarket straight out of the craziest catalogue of hitches for humans?

For someone who had to walk through London's fly-blown West End in the rain to get to the movie, Peter Bradford's *Europa Nostra* came as a shot in the arm. It is, first, a beautiful film, directed and edited with great flair and skill. The provinces too have been abused—mutilated by unnecessary demolitions, suffocated by traffic, decayed by advertisements. Places whose buildings are still worth looking at are seasonally flooded by north tides of tourists. Rocamadour in August is as like Blackpool as it is like Lincoln. The "redevelped" centre of Bristol is like the redeveloped centre of anywhere. We move, like zombies, towards a city of samesville, simpolopolis, "à la vie olde tourtovine". Meanwhile, governments and local authorities, the supposed guardians of what is worth preserving, funk their responsibilities or sell them for a mess of concrete and the teyevue from parking lots. There are honourable exceptions, but some of them still need to be convinced that the preservation of what is beautiful is part of their job. What does go through the minister's/mayor's mind when he declares open yet another hospital/school/supermarket straight out of the craziest catalogue of hitches for humans?

Shylock et al

PAUL TURTON on BBC RE programmes

This year's curriculum programmes from the BBC for religious education in schools attempt to respond positively to current thinking about the subject in schools. The producer's introduction to *Quest* for 11- to 16-year-olds contains a well-balanced "view of Religious Education as a necessary and explicit ingredient in the curriculum". Material should be available which would make a teacher feel confident to use whether his or her personal position is one of belief or not. Christianity will remain as the major area of exploration for his- tory and civics, and should certainly be worth recording in the light of the growing interest in the use of the Bible for this age.

The *Religion and Life* series (10 to 18) offers a resource which should be evidence in which are now much in evidence in the British Isles and through other less formal learning responses such as awe and wonder. One result of these aims is that the year's programmes tend to look something of a rag-bag of unrelated items, although, in fact, they can also be seen as a rich resource to be stored and used as needed.

The final broadcast, this term will be "Behold I make all things new", a radio-visual programme in the "celebration" unit to be transmitted on March 23. The cycle with the story of Easter is linked pressed, (with excellent visuals) in the customs such as washing the feet of Easter eggs and Easter fire ceremonies. The 11- to 16 programmes cover a wide spectrum and recognize, realistically, that many teachers concerned with RE will not be specialists. So far the 11- to 13 output has included three episodes of "The Insect Play", two programmes on

Transported into the wilds and back again

JACKIE HARDIE reviews the primary school Nature series on plants and animals

Nature (Wednesdays 2.45, VHF 4) Monkeys, March 2. With the Chimps, March 9. Mountain Gorillas, March 16. The Horse (radio-visual), March 23. Great Gallop, March 30. Plant Hunters (Fridays 11.00, VHF 4; radio-visual). Adventures of the Plant Hunters; finding plants, February 25. The World in your Garden; growing plants, March 4. All things nice; cutting plants, March 11.

Of the 38 programmes in the *Nature* series for primary schools, 10 were broadcast during the autumn term, 10 are scheduled for the term and eight more for summer. Each unit of programmes can be used independently of the others and their range of subjects means they are suited to both urban and rural audiences.

These term's programmes, three are devoted to the study of primates and one—radio-visual—to horses. There are teacher's notes and pupils' pamphlets for each term's broadcasts and at 19p the pupils' pamphlet for the current ones is a bargain. The pamphlet's good line drawings, unique colour photographs and straightforward text make it a valuable resource.

The primate programmes reveal the strength of radio. Not only are genuine animal sounds used but the presentation incorporates narrative, full drama, anecdotes, expert opinion, folk song and appropriate background music. Though these programmes may form part of some primary science courses, they could play a role in language development and be a stimulus for creative writing, art-work and geography and history projects.

The teacher's notes contain useful information and guidelines for follow-up activities and a good bibliography. In *Monkeys* David Stanbury (a teacher-exper) describes the life of a herd of caged zoo monkeys. However, caged animals are unnatural so the children are transported into their imaginations to the void of South Africa where they watch a group of wild baboons with a naturalist explorer played by Edward Kelsey who describes the animals' social behaviour and the group's search for food and water. Just as *Monkeys* starts with the familiar sight of the animals in a zoo, similarly in *With the Chimps* we first meet the animals of the ten advertisements before being transported to join a group of chimps in tropical Africa.

Even though these programmes are aimed at the primary market they are not condescending and are academically respectable. The *Chimp* programme attempts to inform and initiate a sympathetic

Briefings

Radio and tv

Medical Mystery Plays (Sunday 11.00 BBC 2). Daniel Massey appears in *Abraham and Isaac*, one of two mystery plays produced in full for the Open University. The fifteenth century texts are spoken in original dialect. *Nazi Move* (Sunday 17.50 Radio 2). This series of short readings for adult literates continues with "The huddling actor" read by Alfred Marks. *Get by in Spanish* (Monday-Friday 18.30 Radio 3). *Get by in German* (Monday-Friday 19.00 Radio 3). Two new intensive courses for people needing a few words of Spanish and German. Broadcast each day this week and repeated subsequently once a week.

For schools

It's Fun to Read (Monday 09.47, 10.33 ITV). This animated cartoon to help four to six-year-olds with their reading continues with more complex content making *Masterpiece* (Tuesday 9.10, VHF 4). *Waiting for Godot* by Samuel Beckett is presented by Martin Estlin in the last of this series featuring great works of art. *Near and Far* (Monday 14.18, BBC1). Nine to 11-year-olds visit Venice. They see fishermen, the commercial docks, the daily market, glass and velvet making, and a Venetian family. *Over to You* (Tuesday 10.26, VHF 4). "What is it? How can it be depicted? Eight to 10-year-olds see a comic play on how to make fire on a desert island, look at the Prometheus myth, hear poems and are encouraged to perform a fire dance ritual. *Picture It Out* (Tuesday 11.05, Friday 9.30, ITV). The over-sevens continue work with hexagons and their model suitcase based on six, seven and eight times tables. They see a film on seaweed and are introduced to fractions and David Vambles's origami bird. *Biology* (Wednesday 11.40, BBC 1). "Artificial Selection" examines the way man can produce more food and better wool. The work being done to produce a British bled deer. *Scan* (Wednesday 14.18, BBC 1). The unit "Craft, industry and landscape" ends with a study of the way the South Wales valleys were transformed when man needed coal to drive machinery. *Man* (Thursday 11.20, VHF 4). Ten to 12-year-olds are transported back to Egypt 1000 years after the death of Tutankhamun. They witness the people going to Abydos for the annual religious play which portrays the myth of Osiris. *Our Changing World* (Thursday 11.40, VHF 4). Barry Corran looks at the historical and geographical backgrounds within the BBC and considers their purpose and effectiveness. Aimed at 13 to 16-year-olds.

Interdisciplinary programmes reassessed

The BBC Schools Broadcasting Council's conference in London last week on the middle years of schooling raised fundamental questions about the future direction of BBC schools broadcasts, the needs to be met and the constraints to be overcome. At this conference, Professor Alec Ross, former director of the Schools Council's middle years project, discussed priorities for the curriculum of eight to 13-year-olds. He saw the curriculum in terms of skills that needed development and practice and argued for a balance between the logic of the child approaching the subject and the logic of the subject itself.

Professor Ross's address led back to current preoccupations with core curriculum and underlay the central question posed later by senior representatives of the production departments, Mr Joe Reid (radio) and Ms Felicity Kinross (TV). Should they continue with the interdisciplinary integrated programmes, with programmes that are not readily pigeon-holed and that demand a lot

of the teacher; that often have a disappointingly small audience, though they are well-accepted by those teachers who do use them? Or should the BBC concentrate on closely structured contributions in the mainstream of the curriculum, advancing the understanding of specific subjects, with precise, if not prescriptive, suggestions for follow-up work?

Another issue was whether it was right to continue operating in a spirit masters, slides or overhead transparencies. Publishing constraints could influence decisions about broadcasting, for some kinds of programme are more dependent upon auxiliary publications than others—including language programmes and integrated themes and abstract concepts—while undervaluing all the benefits it can bring. Christopher Griffin-Beale